Winnermetrics Algorithm Factors

HANDBOOK

An Essential Primer For All Betting

With A Focus On Horse Racing

Introduction

Gambling, wagering, betting, call it what you like, has been around as long as man. Wagering on horse racing is not quite as old, but captures the imagination of countless members of many civilizations around the globe. For many people the thrill, excitement and camaraderie of the races are just as important as coming out financially ahead at the end of the day. Other bettors take the races much more seriously. The intellectual challenge is extremely attractive and the pursuit of financial gain is compelling.

Unfortunately, there is total failure of the betting public and so-called experts to understand what betting horse races are actually about. I do not make such a statement lightly. However, I do make the statement because it is true. In fact, that total failure statement applies equally to all forms of gambling.

This handbook is written in two parts. First, it is necessary to make an effort to explain what gambling really is about. Every person who places a wager of any kind on anything should read and apply the first section of the handbook. For the people who do not wager on horses there is no need to read the second part of the handbook. You should read the second part of the handbook if you wish to place wagers on the outcomes of horse races and win money on a consistent, long term basis.

If you read, understand and apply the principles contained in this handbook then you will become a consistent, long term winner at the race track. You do not need to use Winnermetrics Algorithm Factors or any of the Winnermetrics products. You simply need to find a way to effectively apply the principles presented in this handbook. There is absolutely no escaping the principles no matter how hard you try. Ignore the principles contained in this handbook and you will flounder forever.

SECTION 1
Gambling, Wagering, Betting

On any given day millions of people around the world place a wager of one kind or another on all sorts of activities. The list is endless. Casinos offer many opportunities to place a wager on games of chance such as slot machines, craps, roulette, blackjack and countless card games. People place wagers on many other organized activities such as sporting events, lottery tickets and bingo. People also make wagers in their own backyard on things such as pitching quarters, shooting pool, bowling and many more similar events.

Let's dig right in! If you think you may ever place a single wager on anything then there is one unalterable truth you must know. Whether you win or lose on any wager, no matter the event, your financial outcome is controlled by a single mathematical equation. I call it the Expected Value Equation. There is almost nothing written on the Expected Value equation as used for gambling either in books or on the Internet. In other settings there are other uses for the equation and there may be other names for the equation or the equation may be written using lots of Greek symbols or in other intimidating ways. I will present the equation in English.

The equation used in wagering is as follows:

Expected Value =   (Probability of Winning x Amount Won) -
                   (Probability of Losing x Amount Lost)

If you try to do a computer search of the term, "expected value", you will see all sorts of other uses and terms that may make you uncomfortable such as binomial random variable, continuous random variables or arbitrary function. Do not worry! Everything presented in this handbook is in English.

Now, we have a big job ahead of us. We have to come to some sort of understanding of the expected value equation and, more importantly, how to exploit the equation. Of course, it is far more important to understand the material on "how to" exploit the equation .

A good way to get a better understanding of the expected value equation is to put the equation into action. So let's play a little roulette. We are going to put $5 on our lucky number 7. If number 7 comes out on the spin of the ball we win and are paid 35/1. So, for our $5 bet we will get back our $5 plus 35 times $5 or profit of $175. That sounds pretty good! Right? Or not so right? Lets see what the expected value equation tells us.

There are 38 numbers that can come out when playing roulette. There are the numbers from 1 to 36 plus the zero and the double zero on many tables. So that makes 38 possible outcomes. We only win when the number 7 comes out. So are chances of winning on one roll is 1 and our chances of losing are 37. Therefore, the probability of winning is 1/38 or 2.63%. Conversely, your chances of losing are 1 - .0263 or 97.37%.

Let's plug the numbers into the equation.

EV = (.0263 x $175) - (.9737 x $5)

EV = ($4.6025) - ($4.8685)

EV = - $.266

When you bet $5 on lucky number 7 your expectation is to lose approximately 26.6 cents on average every time you place a $5 bet. I say approximately because I have rounded all of the numbers and the actual number is very slightly different for all of you math wizards.

What does the example mean in English? In short, it is impossible to win at an honest game of roulette on a long term basis. Whether you win or

lose in the short term is not relevant. If you keep going and keep playing then, over time, the house edge of 5.26% will eat you alive.

Why is the example important? The example is important because you can easily see how the Expected Value Equation will work. The Expected Value equation consists of fixed, never changing components. The components are always going to be probability of winning, amount won, probability of losing and amount lost. There is no way to manipulate any of the components because the house rules are set in stone. The house always wins at roulette when the game is honest because of the Expected Value equation. The same can be said for virtually every game of chance from craps to bingo to the lottery. It is impossible for the player to win on average over a period of time.

Is there any hope at all? Is everyone destined to lose when they wager? The simple answer is no. If you can find a way to manipulate one of the components in the Expected Value equation then you can change the expected outcome to a profitable outcome.

How might someone manipulate one of the components of the Expected Value equation? Consider the game of blackjack, also called "21". There are 52 cards in a single deck of cards. Before any cards are used the house edge, assuming liberal rules, is a very slim 0.28%. That means the player getting the first hand on a fresh deck has no expectation of winning money. However, on blackjack every card that is used changes the odds very slightly. The odds can go toward the favor of the house or the odds can go toward the favor of the player. It is possible for the odds to switch so much that the player actually has an advantage over the house for some portion of the hands that are dealt. This process has become widely known as card counting. The process has been detailed in a number of excellent books. One of the first and most famous is, "Beat The Dealer: A Winning Strategy For The Game Of Twenty-One" by Edward O. Thorp and published in 1966.

Edward O. Thorp is considered the father of card counting. What did he discover? He discovered a way to exploit the Expected Value equation when playing the game of blackjack. He realized that as every card is played during the game of blackjack the player's probability of winning changes. Not only that, but the change at times favors the player. Therefore, a properly skilled player could exploit the Expected Value equation by only placing bets when the house edge was actually a negative and in favor of the player winning money. In short, if a skilled player only made bets when the odds were in the players favor then the player would expect to win on a consistent and long term basis. It is well known that skilled card counters made millions of dollars at casinos all over the world. The skilled card counters won all of the money by exploitation of the Expected Value equation.

Did the skilled card counters make millions? Yes! Did the skilled card counters win every time the played? Definitely not! Did the skilled card counters sometimes have long losing streaks? Yes, definitely! However, after a long period of play, such as a year, virtually all of the skilled card counters were consistent, long term winners over the casino. If you want to learn more about the concept I strongly suggest reading the book by Edward O. Thorp.

We now know for certain that if you want to be a consistent long term winner then you must find wagering opportunities where you can exploit the Expected Value equation. Blackjack is one of the opportunities because the probability of winning fluctuates. There are no other such opportunities at most casinos because the probability of winning at virtually every game is set in stone by the rules. Every so often you read about someone who went into a casino and bet large amounts of money and won after having the casino agree to certain rules changes. The big players are exploiting the Expected Value equation.

In summary, it is possible to win money on a consistent long term

basis, but you must find a way to exploit the Expected Value equation. Yes, you will have losing days and even losing weeks, but in the long term you will wind up well into the black.

SECTION 2
How To Use The Expected Value Equation

There are truisms that you must understand and accept if you ever want to become a consistent, long term winner at the race track.

Truism #1. There is total failure of horse racing bettors and so-called experts to understand what betting horses is really about.

Truism #2. You must become intimately familiar with the Expected Value equation and learn to exploit the equation.

Truism #3. You cannot beat a race, but you can beat the races.

Let's explore each truism in turn.

Truism #1 is critical to understand. The problem is that neither bettors nor so-called experts really understand what actually contributes to the outcome of a horse race. If you listen to the so-called experts you will hear comments about almost anything from Beyer numbers to early speed advantage to the top jockey on board. All of the comments sound good, but they have very little to do with the actual outcome on a long term basis.

Let me let you in on a little secret. In every single race there are several statistically significant factors that actually contribute to the outcome of the race. And it is not just several! Some races have only 20 statistically significant factors that contribute to the outcome of the race while other races have as many as 80 statistically significant factors. You can *only* become a consistent, long term winner at the race track if you determine your bets in consideration of the statistically significant factors. There is no single factor that you can use to determine your bet that will make you a consistent, long term winner.

Another secret is the statistically significant factors change from race to race depending on certain components of the race. What may be a major contributing factor in race one may have nothing to do with the outcome of race two. Talk about complicating things! Even worse, the weights or importance of each statistically significant factor changes from race to race depending on the composition of the race. Now that is very complicated!

Truism #2 will lead you toward riches! Betting horse races is all about getting value for your wagering dollar. The question is how do you actually get value for your wagering dollar? The answer starts with the Expected Value Equation. In one race a horse going off at 3/1 may represent excellent value while in another race a horse going off at 10/1 may represent terrible value. *Only* the Expected Value equation knows for sure!

Let's take a closer look at the Expected Value equation;

Expected Value =   (Probability of Winning x Amount Won) -
                        (Probability of Losing x Amount Lost)

Hopefully, you can see that the probability of winning is directly related to the probability of losing. As a starting point you need to have a very good estimate of a horse's probability of winning. After that, the probability of losing is 1 - the probability of winning. For example, if a horse's chance of winning is 33% (2/1) then the horse's probability of losing is 1 - .33 = .67 or 67%.

Amount won and lost is much simpler. Amount won is how much profit you make on a race. Let's assume you bet $5 on the 2/1 horse in the example then your profit is $10. When you cash your ticket you will get back your original $5 bet plus $10 profit. When you go to the cashier with your $5 to win on the $6 winner you will be paid $15 which is the return of your original $5 bet plus your $10 profit.

Amount lost is simply the amount of your bet on the horse if it loses. In this example, if your $5 bet on your 2/1 horse loses, which it will do most of the time, then your $5 is down the drain.

Let's fill in the equation to see how it works.

Expected Value =   (.33 x $10) - (.67 x $5)

Expected Value =   ($3.30) - ($3.30) (rounded)

Expected Value = $0 (break even)

So you can see if a horse has a 33% probability of winning and the horse goes off at 2/1 then you will break even.

Let's take the same horse with a 33% chance of winning. This time, however, the public has underestimated the horse and the horse is going off at 4/1. Let's fill in the equation under this new set of facts with the same $5 bet:

Expected Value =   (.33 x $20) - (.67 x $5)

Expected Value =   ($6.60) - ($3.30) (rounded)

Expected Value = $3.30 (nice profit)

What does this mean in terms of dollars? On average a horse with a probability of winning of 33% will win once every three races. Your net results for three races will be as follows given the expected value of $3.30:

race 1 = -$5 loss (lose)
race 2 = -$5 loss (lose)
race 3 = +20 profit (win)

Your net will be winnings of $10 in the three races when you bet a horse with a probability to win of 33% and going of at 4/1. This gives you a return on investment of $10 profit / $15 bet for an ROI of 66.66%. Very nice indeed!

All you need is a reasonably accurate estimate of a horse's chances of winning the race in order to make a consistent, long term profit at the race track. Al you need to do is bet horses that were underestimated by the betting public.

Truism #3 reminds us there is no magic wand in horse racing. The best horse does not always win the race. It has been said there are a thousand ways to lose a race and only one way to win. You must remember that up to 80 or more factors are contributing to the outcome of a race. Lots can go wrong during the running of a race. Even with the best information and understanding of the Expected Value equation you will have losing streaks. Some of them will be long. However, there is absolutely no escaping the mathematics of the Expected Value equation. When you have a winning streak do not get too excited. When you have a long losing streak do not get frustrated and give up. The mathematics will average out over hundreds of races. As long as you bet with a positive expected value then you will win in the long run. Therefore the saying, "You cannot beat a race, but you can beat the races."

In summary, an informed, intelligent bettor actually has an excellent chance of becoming a consistent, long term winner at the race track. It is important to play for long term results. Knowing that there are numerous factors that contribute to the outcome of the race is important. Understanding and exploiting the Expected Value equation is critical. Finally, having a good, balanced spirit will keep you going when you have those inevitable losing streaks.

SECTION 3
Why You Should Consider Subscribing To
Winnermetrics Algorithm Factors
The Essential Algorithms

In order to become a consistent, long term winner at the race track you *must have* a source for very accurate estimates of a horse's probability of winning the race and you *must* make only value bets by properly using the Expected Value equation. If you bet on overbet horses going off at odds substantially below fair value then you cannot win at the race track.

You *must* have a source for very accurate estimates of every horse's probability of winning so you can make use of the Expected Value equation. Unfortunately, morning line odds are not even close to accurate enough to use. You do not have to use Winnermetrics Algorithm Factors as your source of information. Of course, you will definitely want to use the most accurate source for probability of winning that you can find. Otherwise, you will not be able to make effective use of the Expected Value equation. The Optimal Odds rating contained in the Winnermetrics Algorithm Factors are very accurate estimates of a horse's chances of winning the race based on statistical analysis. It is frequently amazing just how close the actual post time odds are to the Optimal Odds.

If you are thinking that you want to explore the use of Optimal Odds then please keep reading with an open mind. It is clearly time for new thinking. You have to be willing to think outside the box. What you are about to read is revolutionary in the world of betting on horses. What you are about to read is based in science and makes complete sense once you understand what betting on horses is truly about.

In order to be successful betting on horses you will need to master the Expected Value equation and then exploit the equation where possible. You will need to understand and accept the usefulness of the Optimal Odds

ratings for use in the Expected Value equation. Please continue to read on if you are serious about becoming a consistent, long term winner at the race track.

Optimal Odds

Optimal Odds ratings are very accurate estimates of each horse's chances of winning the race expressed in terms of odds. Optimal Odds are derived from the best algorithms Winnermetrics has to offer. Optimal Odds ratings are what you need to maximize your exploitation of the Expected Value equation.

Think of your own long term experience. Some days are particularly good and some days are particularly bad. Most days fall in the middle. You have read many books on the subject. You have looked at and possibly bought all sorts of software or programs. Yet, you cannot get over the hump. You just cannot win on a consistent, long term basis.

Why?

As was said earlier, unfortunately, there is total failure of the betting public and so-called experts to understand what betting horse races are actually about. Betting horses is definitely not about picking winners. Betting horses is about making money. Every single bet you make *must* be calculated to make a consistent, long term profit. There is only one way to do that. You must exploit the Expected Value equation. In order to exploit the Expected Value equation you must have a source for very accurate estimates of every horse's chances of winning the race. Optimal Odds provides you with very accurate estimates of every horse's chances of winning the race.

You have to understand how Optimal Odds works. Winnermetrics Algorithm Factors calculates a horse's chances of winning the race very differently than you may expect. In Optimal Odds the horse's probability of

winning is derived by comparing many, many factors for the current horse in consideration to the same factors for thousands of similarly situated horses. Think of a race with thousands and thousands of horses in the race. The Optimal Odds rating is the current horse's chances of winning the race when racing against thousands and thousands of similarly situated horses.

In some races the field is strong and loaded with horses who would all do well in the race against thousands and thousands of similarly situated horses. In that case many horses in the race would have estimated probabilities at or below 1/1 and the total of all probabilities in the race could exceed 300% or more. Mathematicians would instantly say that is impossible. The mathematicians would say there is always a finite limit of 100% probability to win. That is true *only if* we were just looking at the horses in today's race. We are not. That is why you have to think outside the box. Please understand the horses in the race are *NOT* compared to each other to determine their Optimal Odds probability of winning. Rather, the horses are compared to the thousands and thousands of similarly situated horses in the large mythical race in order to determine their probability of winning.

The opposite can also be true. The race can be loaded with poor horses that did very poorly in the large mythical race. Therefore, every horse in the race may have double digit probabilities of winning and the total Optimal Odds probability for the race can be far below 100%.

The bottom line is the Optimal Odds ratings are very accurate estimates of every horse's chances of winning the race based on statistical analysis. Optimal Odds work very well when used to exploit the Expected Value equation.

Optimal Odds are presented in the sheets in terms of odds. The Expected Value equation requires a decimal number version of probability of winning and losing. Here is a conversion chart for your convenience. The

decimals can be used in the Expected Value Equation. I will also show you an easier way shortly.

Prob. Winning	Decimal Prob. Winning	Decimal Prob. Losing
1 / 9	.90	.10
1 / 5	.8333	.1667
2 / 5	.7143	.2857
1 / 2	.6667	.3333
3 / 5	.6250	.3750
4 / 5	.5556	.4444
1 / 1	.5000	.5000
6 / 5	.4545	.5455
7 / 5	.4166	.5834
3 / 2	.4000	.6000
8 / 5	.3846	.6154
9 / 5	.3571	.6429
2 / 1	.3333	.6667
5 /2	.2857	.7143
3 / 1	.2500	.7500
7 / 2	.2222	.7778
4 / 1	.2000	.8000
9 / 2	.1818	.8182
5 / 1	.1667	.8333
6 / 1	.1429	.8571
7 / 1	.1250	.8750
8 / 1	.1111	.8889
9 / 1	.1000	.9000
10 / 1	.0909	.9091
11 / 1	.0833	. 9167
12 / 1	.0769	. 9231
13 / 1	.0714	.9286
14 / 1	.0667	.9333
15 / 1	.0625	.9375

16 / 1	.0588	.9412
17 / 1	.0556	.9444
18 / 1	.0526	.9474
19 / 1	.0500	.9500
20 / 1	.0476	.9524
21 / 1	.0455	.9545
22 / 1	.0435	.9565
23 / 1	.0417	.9583
24 / 1	.0400	.9600
25 / 1	.0385	.9615
30 / 1	.0323	.9677
35 / 1	.0278	.9722
40 / 1	.0244	.9756
45 / 1	.0217	.9783
50 / 1	.0196	.9804
60 / 1	.0164	.9836
70 / 1	.0141	.9586
80 / 1	.0123	.9877
90 / 1	.0110	.9890
99 / 1	.0100	.9900

Now you can certainly run the Expected Value equation for every horse in every race. You can also use a shortcut. All you have to do is look at the Optimal Odds value and look at the actual odds on the tote board. If the actual odds are higher than Optimal Odds you have an overlay which is a good bet. The more the actual odds are higher than Optimal Odds the better! For example, when the Optimal Odds value for a horse is 5/1 and the actual odds are 10/1 then you are getting a 100% premium when you bet the horse. Even though you will lose most of your bets you will still make money in the long term. Just plug in the values in the Expected Value equation to see how much.

Making a $5 bet on a horse with Optimal Odds of 5/1 and going off at 10/1

you get the following:

Expected Value = (.1667 x $50) - (.8333 x $5)

Expected Value = ($8.34) - ($4.17) (rounded)

Expected Value = $4.17 (nice profit)

Test the numbers out. If you make the same bet 100 times you will bet $500. You will win 17 of the 100 races (based on 5/1 Optimal Odds rounded) and you will lose 83 of your 100 races. So you will lose $5 times 83 races for minus $415. However, even though you will only win 17 races, you will get your premium every time. That gives you $50 profit times 17 winning races for a profit of $850. Putting it all together, for the 100 races bet you collected $850 profit and lost $415 for a net profit of $435. The actual amount is $417 profit after rounding is eliminated.

You will notice there was no mention of how to pick a winner. The only consideration is betting so you will get a premium when you win and cash a ticket. Be prepared to lose most of the races you bet, but also be prepared to laugh all the way to the bank with your winnings.

RSR Relative Strength Rating

Relative Strength Rating is derived from an algorithm based on the race decribed above with thousands and thousands of horses. A RSR of 100 means the horse would win the large mythical race every time it was run. No horse has ever had a RSR score of 100 in the four years I have been working with RSR. Very, very few horses even get above 90.

RSR can be considered a measure of whether the horse will be competitive in the race. The lower the RSR the less chance the horse will be

competitive in the race since it would not be very competitive in the mythical race of thousands and thousands of horses. As RSR falls below 65 the horses are not really very competitive. However, some races have most or all horses with RSR well below 65. There will still be a winner of the race who looks almost like Secretariat crossing the wire.

How does RSR help make money? As Mr. Wonderful would say, it is all about the money and there is nothing else.

Let's go back to Optimal Odds for a second. The discussion on Optimal Odds is very accurate and at the heart of winning money at the race track. In the real world sometimes you have to make decisions. For example, in the race you are thinking about betting all of the horses are overbet. However, there is a horse going off at 8/1 which has an Optimal Odds rating of 10/1. The question becomes whether you should bet the horse at slightly below Optimal Odds.

First, there is some level of standard deviation in the Optimal Odds ratings. Second, the Optimal Odds ratings are highly accurate *estimates*. They are not exact. They are very, very close to a horse's probability of winning.

RSR is a very effective tool to help you understand the nature of the race and decide whether to bet on the 8/1 horse.

It is critical for you to understand and accept that there are many, many factors that research has demonstrated are statistically significant in contributing to the outcome of the race. In a few races there may only be 20 statistically significant factors. In most races there are anywhere from 50 to 80 statistically significant factors. That may sound amazing to you. However, it is true based on all of the research.

"Peel the onion"! In every race there is layer upon layer of factors that

actually determine the outcome of the race. In races where the top RSR scores are at or above 65 then the blending of every single factor is critical. You cannot "hang your hat" on any single factor contained in the Winnermetrics Algorithm Factors when a few horses in the race have good RSR scores of 65 or more. When the RSR scores are at or over 65 then you really need to get your odds of 10/1 and, preferably, 20/1 or higher. Remember, you are making bets to win MONEY! Forcing a bet is *never* a good idea.

In races where the best RSR in the race is low then the story is a little different. It is easier in a sense to "peel the onion". When the horses in the race are weak then it is sometimes easier to "hang your hat" on a single Winnermetrics Algorithm Factor to make your decision to go ahead and bet the 8/1 horse. For example, when your horse is 8/1 and the Optimal Odds rating is 10/1 you definitely lean towards passing the race when the rest of the horses are heavily overbet. However, if the top RSR score in the race is 59, for example, and your 8/1 horse owns Key Factor 1 then you are more willing to accept slightly lower odds because your horse *owns* the *most important* factor in the race. The is *not* a factor the pundits point out, but rather the factor the algorithms have identified as the *most important* factor in the race. When your horse owns the most important factor in a very weak race then you may very well be willing to accept actual odds slightly below Optimal Odds.

SECTION 4
Why You Should Consider Subscribing To
Winnermetrics Algorithm Factors
The Rest of the Story

You must always focus on exploiting the Expected Value equation. It is all about *money*! There is no other real reason to bet the horses. When it is all about the money then it is all about the Expected Value equation. Of course, you would love to have a horse in every race that is going off at double, triple or even more times Optimal Odds. Unfortunately, that does not happen as much as you would like in the real world. Winnermetrics Algorithm Factors offers several other ratings that are unique in the horse racing universe which help you decide when to accept slightly less actual odds than Optimal Odds.

"E" Rating

The "E" rating is a measure of early competitiveness and not early speed. Winnermetrics breaks the race down into three components. They are simply the first third, second third and final third of the race. The "E" rating concerns only the first third of the race. "E" ratings go from 1 and up. There is no top number. The "E" ratings go into the teens. An "E" rating of 1 means the horse is likely to be very competitive in the first third of the race. An "E" rating of 2 means the horse is likely to be competitive in the early part of the race. An "E" rating of 3 or 4 means the horse is a little less likely to be competitive in the early part of the race. An "E" rating of 5 or 6 means the horse is likely to run mid-pack for the first third of the race. An "E" rating of 7 or 8 means the horse is likely to run at the back of the pack for the first third of the race. An "E" rating of 9 or higher means the horse is likely to lose contact with the pack during the first third of the race. "E" ratings can and do go into the teens.

Why is the "E" rating important?

Remember, everything is about the money which means everything is about exploiting the Expected Value equation. When you are deciding whether or not to bet in a close call situation the "E" rating will sometimes be very informative. For example, during webinars there frequently is a discussion about "paceless" races. A paceless race is when there are no horses in the race with a 1 or 2 "E" rating. "Almost paceless" races are where the horse with an "E" rating of 2 has other ratings that are so bad the horse is not really a win contender.

You may ask how can there be a race with no horse projected to be competitive early? You think to yourself that one or more horses almost always go for the lead. The answer is that the "E" rating is developed in consideration of the mythical race with thousands and thousands of horses in the race. The "E" rating tells you how likely the horse is to be competitive in the first third of the race against thousands and thousands of horses. In some races there will be a lot of early competitiveness and in some races there won't be any early competitiveness.

In a "paceless" race, for the most part, only two types of horses win. Either the horse that gets the lead wins or the best closer wins. The middle runners rarely win a "paceless" race. You will be able to determine other patterns by watching and studying many races.

This information is invaluable in determining whether to accept slightly less than Optimal Odds. Imagine a race where the top RSR horse has a 56 rating and the race is paceless. As frequently happens, most of the horses are overbet with actual odds substantially lower than Optimal Odds. The "E" rating is usually a good place to start your evaluation of a race right after Optimal Odds and RSR because you can develop a sense of how the race will run and which horses will be competitive.

"I" Rating

The "I" rating informs of the potential for improvement. The ratings go from 9 down to 6. Horses with an "I" rating of 9 have good potential to improve at a good price. In fact, research has indicated that horses with an "I" rating of 9 will return a solid profit over time. Horse with an "I" rating of 8 are slightly less profitable than a "9" horse, but still prove to be profitable over time. Horses with an "I" rating of 7 are even a little less profitable over time. Not very many horses earn a 9, 8, or 7. Many horses earn an "I" rating of 6. Such horses are marginally profitable over time.

"TVP" Rating

"TVP" stands for Trainer Value Play. A rating of 100 or more is very helpful for longshots *only*. TVP is an algorithm designed to point out trainer plays that are likely to pay very good odds. TVP does not always work, but when it does the results are boxcars. In the races where all of the horses are weak TVP may make the difference. In maiden and maiden special weights TVP can make the difference. One word of caution. TVP is designed strictly for longshots. That means 20/1 or higher. Many have come in at 50/1, 60/1 and 70/1 or even higher. If a TVP horse is going off at 5/1 or 10/1 it may very well be overbet. Please check the Optimal Odds before betting blindly on a TVP horse. Conversely, do not be afraid to bet when the horse is in the range of 50/1. They will not all run well, but enough will run well to make you very happy.

"MM" Rating

"MM" stands for Mover and Shaker. A rating of "M" means simply that there is a good likelihood that the horse will be a mover and shaker in the race and make a significant move at some point in the race. A rating of "MM" means the horse is VERY likely to be a mover and a shaker at some point in the race. One warning - if the horse has a high BL1 then the horse may make a big move from dead last to the middle of the pack. On the other hand, there are frequently high priced winners who are the only "M" in the

race. The key here is to be alert to the "M" rating and use it judiciously.

"C1" Rating

"C1" is a measure of recent competitiveness and answers one simple question, "has the horse recently performed as well as it needs to today"? If the horse earns a 100 then in a recent race it has done what it needs to do today. Higher than 100 means the horse has done even better than it will probably need to do today. Less than 100 means in a recent race the horse did not match up to what it needs to do today. When deciding whether to accept slightly lower odds than Optimal Odds you most likely will want a horse with a good "C1" score. If you are getting a good premium on Optimal Odds then you will be willing to accept a little lower "C1" score. This is very useful information in a number of ways. For example, in a maiden race where every horse has "C1" scores well below 100 you can give serious thought to a first time starter.

"C2" Rating

"C2" is a measure of the competitiveness of horses the horse has been competing against. If "C2" is over 100 then the horse is effectively dropping in class. If "C2" is under 100 then the horse is effectively going up in class. When deciding whether to accept slightly lower odds than Optimal Odds you most likely will want a horse with a "C2" score over 100. If you are getting a good premium on Optimal Odds then you will be willing to accept a "C2" score a little below 100. This is very useful information. For example, in the maiden race above where every horse has "C1" scores well below 100, you can consider a horse with a "C2" well above 100 because there is a reasonable chance the horse will perform better since it is dropping in class.

"T" Ratings

T1, T2, and T3 are the "T" scores. T1 is for the first third of the race. T2 is for the middle third of the race. T3 is for the final third of the race. The "T" scores are a measurement of a horse's ability to perform in each third of the race. Again, you have to understand that the "T" scores come from the mythical race where there are thousands and thousands of horses running in the race. A "T" score of 0 means the horse appears to be capable of doing exactly what the horse needs to do in the particular third of the race. For example, a T1 score of 0 means the horse appears to be exactly capable of doing what it needs to do to be very competitive in the race. A negative (-) "T" score is better and means the horse appears superior in the relevant third of the race. For example, a T1 rating of -5 means the horse is very capable in the first third of the race and should easily be competitive in the first third of the race. A positive "T" rating means the horse appears to be less than capable to do what it needs to do to be very competitive in the relevant third of the race. For example, a T1 rating of 5 means the horse appears to be at a disadvantage in the first third of the race.

One thing to keep in mind when looking at "T" ratings are the "E" ratings. The "T" ratings should be consistent with the "E" ratings. For example, a horse with an "E" rating of 2 is probably not going to be competitive in the race if the same horse has a T1 rating of 5. It is not consistent because an "E" of 2 means the horse *should* be competitive early, but a T1 of 5 means the horse is *not likely* to be competitive when it needs to be.

"BL" Ratings

The most important columns in the "BL" section are BL1, MT, and MS. The three columns combined give you a reasonable picture of the momentum in the race. BL2 and BL3 are estimates of how far ahead or behind a horse will be turning for home and at the wire, respectively.

It is important to understand what causes a horse to win a race. Of

course, there are all of the statistically significant factors. But, in addition to that, there is momentum or lack thereof. Most races are won by horses who exhibit superior momentum at some point during the race. A few races are won by default which means the winning horse was just good enough to be in the right place at the right time and the horses in front of it just quit.

BL1 reflects early momentum. A negative (-) rating is best which indicates superior momentum early in the race. A BL1 rating of 0 indicates just sufficient momentum early in the race. A positive number indicates insufficient momentum early in the race. MT identifies momentum in the second third of the race. MS identifies momentum in the final third of the race. Horses that win by default usually have low negative ratings across. Be on the lookout because they usually pay very well.

Another issue to think about is horses with too much apparent momentum. While there are no absolutes, horses with too much momentum frequently fail to use the momentum sufficiently balanced and fail to get to get to the wire. If a horse has a BL1 rating of -20 there is a good chance the horse will have a nice lead early in the race. The question is, how far can the horse carry the lead. The MS rating gives you insight into the answer.

MOM Rankings

The MOM Rankings are very powerful!

MOM scores are an effort to give actual beaten lengths PER RESPECTIVE THIRD OF THE RACE. It is very important to understand MOM1 is the first third of the race, MOM2 is the second third of the race and MOM3 is the final third of the race. More importantly, the ratings are NOT continuous. MOM1 is separate from MOM2 and MOM3. That means they are calculated separately for each third of the race. Therefore, sometimes there will be very large numbers when one horse is very strong in one third

of the race.

It is important to understand that the vast majority of winners have a "0" or near "0" score in one of the MOM1, MOM2 or MOM3 columns. Odds means nothing when looking at MOM scores. A horse with a MOM3 score of 0 recently won at Saratoga at odds of greater than 50/1. Many horses with good MOM scores win at odds of 10/1 and higher.

Look for low scores, especially "0" scores in MOM1, MOM2 and MOM3. There are no negative scores in MOM1, MOM2 or MOM3.

MOM12 and MOM23 ratings are momentum from one third of the race to the next third of the race. MOM12 and MOM23 can have negative numbers and lower is always better.

Sartin Style Ratings

The following ratings are based on the concepts of Dr. Howard Sartin. The numbers may or may not match the Sartin numbers because of the possible influence of algorithms.

EP - Early Pace

EP is designated in feet per second. EP is a measure of early ability.

SP - Sustained Pace

SP is designated in feet per second. SP is a measure of later ability.

AP - Average Pace

AP is designated in feet per second. AP is a very powerful rating. AP is a measure of the averaged pace throughout the race.

FX - Factor X

Factor X is designated in feet per person. FX is more effective in sprints, although it is valid in routes. FX is a measure of early and late combined.

TE - Total Energy

TE is not directly designated in feet per second. TE is based on feet per second. TE is a general ability rating. TE will not stand alone and be successful.

%M - Percent Median

%M is a percentage rating. %M is a measure of how much strength a horse expends in the first two thirds of the race.

HE - Hidden Energy

Hidden Energy is designated in feet per second. HE is a measurement of very late stretch ability.

Key Factor Rankings

The Key Factor rankings are the source of many winners. When you are deciding on whether to accept slightly lower odds than Optimal Odds you will certainly want to check out the Key Factor rankings. P1 - P6 are the 6 strongest positive key factor rankings. The ranks go from a best of 1 to a good of 6. When there is a rank of 0 then the horse does not exhibit

sufficient strength to be ranked for the key factor.

M1-M6 are the negative key factors. If there is a ranking of 1 for a horse then the horse is burdened by a negative key factor. If there is a 0 ranking under M1-M6 then the horse does not have a problem with the negative key factor.

You will notice a row above P1 - M6. The row is the relative weight for each key factor, both positive and negative. The strongest factors have a relative weight of 9. The lowest relative weight is 1. If there is a 0 for the relative weight then there is no factor for that column. Let me explain why there may be a 0 relative weight. In every race there is from about 20 to about 80 statistically significant racing factors. Many of the factors contribute only very slightly to the outcome of a race. That is why it is necessary to "peel the onion"! When the next strongest factor falls below a strength threshold then the factor is too weak to list as a meaningful key factor.

Why are the Key Factors so important?

When you hear so-called experts talk, you will frequently hear them talking about certain factors in every single race, such as speed or Beyer number. *There is no single factor that will make you a consistent, long term winner!*

Key Factor ratings are different because the actual factor changes every race based upon the science of Winnermetrics. P1 is the most important, statistically significant factor in the race. The actual racing factor represented as P1 changes from race to race depending on the composition of the race. When you see a 1 under P1 then you know which horse is the best horse in the race for the most important factor in the race. There have been 50/1, 60/1 and higher P1 = 1 horses who have won! Key Factors are worth their weight in gold!

Fishing Score (FS)

Over "C1" and "C2" you will see the letters "FS" followed by a number. This is the Fishing Score. The score ranges from 1 to 10. The higher the score the more likely the winner will have high odds. Why would you want to fish in a lake where there was only 1 fish? Go fishing in a fully stocked lake. The average fishing score is 5. If you really want to make money consistently then you have to become a good fisherman. Here is a hint. Fish where there are fish!

Help

I know you will have questions. Please feel free to contact me at algorithmfactors@gmail.com. I will answer every question presented.