

Winnermetrics Algorithm Factors

HANDBOOK

An Essential Introduction
For Betting Horse Racing

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Provided by Algorithmfactors.com
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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. A few bettors take betting on horses much more seriously. The intellectual challenge is extremely attractive and the pursuit of financial gain is compelling.

It is amazing how much horse bettors do not know about betting horses even though many have been betting horses most of their life. Most bettors have an imperfect understanding of how to make money betting horses. Unfortunately, there is total failure of the betting public and so-called experts to understand what betting horse races is actually about. If you think betting horses is about picking the winner you are 100% wrong. If you wish to enlighten yourself then continue reading. However, please do not bother to read any further unless you are serious about making a long term profit betting horse races.

You may be wondering why you should believe one word you read. The answer is you are reading the work of one of the very few people who have been qualified and accepted as an expert in the mathematics of gambling by the Superior Court of New Jersey. I worked several years for a casino spotting card counters and performing other mathematics based security work. I have also been an adjunct professor of mathematics. Simply stated, I am an expert in the mathematics of gambling and betting on horses is pure gambling. I am the developer of Winnermetrics Algorithm Factors.

Are you ready for the secret to consistently winning money at the race track?

The Expected Value Equation is the formula every casino in the world uses to make sure gamblers lose money every time they enter the casino. Edward O. Thorp is an American mathematics professor, best selling author of *Beat the Dealer*, and blackjack researcher. He pioneered the modern applications of probability theory, including the harnessing of very small correlations for reliable financial gain. His research mathematically proved skilled card counters could turn the tables on the casinos and use the expected value equation to beat the casinos at the game of blackjack.

This handbook is written in three parts. First, it is necessary to make an effort to explain what gambling really is about. How can you place a bet if you do not really understand what you are doing? Every person who places a wager of any kind on anything should read and apply the first section of this handbook. There is no need whatsoever to buy anything. You will be 100% ready to apply what you learn in section 1. For the people who do not wager on horses there is no need to read the second or third part of the Handbook. You should read the second part of the Handbook only if you wish to place wagers on the outcomes of horse races and win money on a consistent, long term basis. You should read the third part if you want to understand all of the ratings in Winnermetrics Algorithm Factors.

Winnermetrics has taken the ground breaking research of Thorp and applied the mathematical concepts to betting horses. Let's take a closer look at the expected value equation. EV stands for expected value. Expected value represents your expected average winnings over a large number of races.

Your secret to consistent winning at the race track is to only place a bet win the expected value is a positive number.

If you read, understand and apply the principles contained in this Handbook then you will have everything you need to 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 at placing wagers forever.

SECTION 1

Gambling, Wagering, Betting

On any given day tens of thousands 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 other 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 very little 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 and as simply as possible. In fact, the equation used for gambling is rather simple and easy to understand for many people. Applying the equation can be another story.

The equation used in wagering is as follows:

$$\text{Expected Value} = (\text{Probability of Winning} \times \text{Amount Won}) - (\text{Probability of Losing} \times \text{Amount Lost})$$

If you try to do a computer search of the term, “expected value equation”, 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 and applies specifically to gambling. 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. Here is a hint. Exploiting the Expected Value Equation is what enables you to win betting horses on a long term, consistent basis. Winnermetrics makes exploiting the Expected Value Equation simple and possible for you.

The first and most important concept to understand is your key to making money by gambling is to find a way to take advantage or exploit the expected value equation. Edward O. Thorp wrote , “Beat The Dealer”, first published in 1962, which basically explained the mathematics of card counting. Card counters use mathematics to beat the casino through exploitation of the Expected Value 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 in most casinos. 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 on a double 0 wheel. There are the numbers from 1 to 36 plus the zero and the double zero on most roulette 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.

$$EV = (.0263 \times \$175) - (.9737 \times \$5)$$

$$EV = (\$4.6025) - (\$4.8685)$$

$$EV = - \$0.266$$

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% on a single number 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 at a casino 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. The exception is blackjack for card counters.

The new exception is horse racing.

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. Please take a moment to think about it. Finding a way to manipulate one component of the Expected Value Equation can change your life forever!

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 played 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 1962.

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 changes the odds so much that the

odds favor 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 player had an advantage then the player would expect to win on a consistent and long term basis. It is well known that skilled card counters have made and continue to make millions of dollars at casinos all over the world. Skilled card counters win all of the money by exploitation of the Expected Value Equation. Winnermetrics enables horse bettors to do exactly the same at the race track.

Can skilled card counters make millions? Yes! Do skilled card counters win every time they play? Definitely not! Do 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 are 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 mentioned above.

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 and only place a bet when you have an advantage. Blackjack is one of the opportunities because the probability of winning fluctuates. Note that the probability of winning is a component of the Expected Value Equation. 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.

I must give additional credit to Edward Thorp for his thoughtfulness in approaching gambling. It takes a certain type of personality to faithfully exploit the Expected Value Equation. Dr. Thorp determined a series of “lessons” to help guide the process. I will paraphrase them with full credit belonging to Edward Thorp. I agree with every “lesson”.

Lesson one states that there is a historical record in blackjack that can be analyzed to determine what would happen if a player were to take one action over another. I submit there is a historical record in horse racing that can be analyzed to determine a horse’s chance of winning the race for every horse in every type of race.

The analysis is much more difficult in horse racing. Blackjack is a fairly simple system because there are a limited number of factors impacting the outcome. The factors in blackjack are which cards have been played and which cards are left to be played. In horse racing there are hundreds of factors to be considered in determining the outcome. Not all factors impact the outcome in every race. Not all possible factors are known. The more factors that can be identified as contributing to the outcome of the race the more accurate the prediction will be. Winnermetrics has conducted an exhaustive evaluation of the historical data for tens of thousands of races and developed algorithms which identify what factors contribute to the outcome of every type of race and how important every factor is to the outcome of every type of race.

Lesson two is for every serious gambler to understand the importance of developing a strategy to be faithfully employed in the attack on making money consistently. Thorp developed a two part strategy for beating the game of blackjack. The first part of the strategy was what move to make when playing the hand. The decision was called a basic strategy and changed at certain times depending on the cards played and the cards left to be played.

The second part of the strategy was to bet as small an amount as possible when the mathematics of the played cards compared to the remaining cards indicated the probability of winning was against the player. Conversely, the player would dramatically increase the bet when the mathematics of the played cards compared to the remaining cards indicated the probability of winning was in favor of the player.

A similar strategy can be employed when betting horses using algorithms. The horse bettor is never forced to make a bet. Therefore, it is a simple process for the horse bettor to only make a bet when the betting public undervalues a horse. In that situation the horse bettor using horse racing algorithms will have an advantage over the betting public. The advantage is somewhat different from the advantage in blackjack. In blackjack the advantage is to bet substantially more money when the probability of winning favors the player. In that situation the card counter will collect substantially more on winning bets and have more than the average number of winning hands.

Let's do an experiment. In horse racing using algorithms the advantage is to collect much more than fair value when your horse wins and to win more often than the probability established by the betting public. How does a horse racing algorithm bettor win more often? By using self control and only betting on horses that are undervalued.

In the experiment there are two bettors. Bettor A represents the betting public. Bettor A will bet the next 100 horses going off at 4/1. Bettor B represents the horse racing algorithm bettor. Bettor B will also only bet 100 horses going off at 4/1. However, Bettor B can only bet horses which qualify with a predicted win probability of 2/1 that are actually going off at 4/1. Bettor B will bet the next 100 horses who qualify.

In the experiment if the horse racing algorithm predicts a one in three chance of winning the race then fair odds for the horse is 2/1. If you bet 100

races on an example horse with a predicted probability of one win in three races then you will win about 33 of the one hundred races. The key is you will not bet the next 100 races in a row. You will bet the next 100 races *where the horse you are betting is undervalued by the public*. That is the horse that is qualified and Bettor B is allowed to bet. That may take 200 or 300 actual races.

Bettor A simply bets the next 100 horses going off at 4/1. Bettor A will bet the total amount of \$200 in the 100 bets and the amount collected on 20 wins at \$10 each will be \$200. The advantage to Bettor B using horse racing algorithms is knowing the predicted probability of winning for each horse in the race. Bettor B will only bet horses with a predicted win probability of 2/1 and will actually win 33 races over the 100 races bet. In the 100 races the horse racing algorithm bettor will still bet \$200. However, the horse racing algorithm bettor will collect 33 wins at \$10 each for a total collected of \$330. The difference of \$330 collected by Bettor B and the \$200 collected by Bettor A is \$130. The \$130 represents the profit made by the horse racing algorithm bettor. The big difference happens because Bettor A had to bet the next 100 horses going off at 4/1 and Bettor B was only permitted to bet horses who were going off at 4/1, but had a predicted win probability of 2/1.

Bettor B benefits from the knowledge provided by the algorithms. How? Bettor B only bets on the horse going off at 4/1 when the predicted win rate is one win in three races or 2/1. That is how the horse racing algorithm bettor makes money. A bet is only made on undervalued horses. The mathematical concepts are entirely based on the mathematica concepts developed by Edward Thorp. The strategy is different because flat bets are optimal for a less skilled money manager and there is no need to dramatically increase the amount bet. Solid profit is made based on how badly the public undervalues the horse. The greater the undervaluation the greater the profit. There are other betting approaches such as the Kelly

Criterion developed in the 1950's by John Larry Kelly, Jr. However, flat betting is highly recommended for all but the most skilled bettor.

Lesson three is to test your ability and strategy prior to making substantial bets. Most people will fail using Winnermetrics just like most aspiring card counters fail. There is a variety of reasons. The reasons generally boil down to a personality issue. Most people do not have the patience or self control to successfully utilize mathematics for card counting or betting horses. Horse players want to bet favorites or take a flyer on the early speed or bet their favorite jockey. Those activities are what makes losers.

Winnermetrics is not a get rich quick scheme that the hare would love when running against the tortoise. Rather, using horse racing algorithms will generate slow and steady income over a long period of time. You will not win every race. In fact, you will lose most races. Winnermetrics is not designed to give you winning horses. Winnermetrics is designed to put money in your pocket.

Lesson four is to understand the critical nature of money management. In both blackjack and betting horses improper money management leads to ruin. In any given race anything can happen. There is an old saying in horse racing that goes, "you can beat a race, but you can't beat the races." That statement is actually false. There are many ways for a horse to lose a race and only one way for a horse to win. A horse wins if everything goes perfectly the whole race.

The true statement is actually, "you can't beat a race, but you can beat the races." You can absolutely beat the races if you only ever bet undervalued horses. There is a mathematical approach called the element of ruin. It is a mathematical calculation that tells you your chances of doubling your bank or going broke. If you have a bankroll consisting of 100 units of money and religiously bet 1% of bankroll to win on horses going off

at least double the predicted fair odds then your probability of doubling your bankroll before you go broke approaches 98%.

Lesson five was alluded to earlier. The psychological factor is the most difficult problem any professional gambler will face. Mental toughness is extremely critical to success. In horse racing betting using algorithms there will be terrible losing streaks where you think the whole idea is crazy. Using algorithms is quite sound mathematically. The problem is the law of large numbers applies. The results are strictly long term. That is why it is critical to use a bankroll. You simply have to trust the math and know your advantage is real. It does not take very many winners at 20/1 or 50/1 to make up for the losers. I never said Winnermetrics was glamorous or exciting. Using Winnermetrics is boring. It is frustrating at times. That is until you go and buy your brand new Maserati and pay for it with your winnings.

In summary, it is possible to win money on a consistent long term basis gambling, but you must find a way to exploit the Expected Value Equation. You must develop the skill and self control to only place a bet when you have an advantage. Winnermetrics will guide you!

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 by only making a wager when you have an advantage.

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 nothing to do with profitability on a long term basis.

Most people who place a bet think they have to win the bet. Sounds reasonable doesn't it? The problem is the statement is not correct. Most bettors focus on picking a winner. That is the specific total failure of the horse racing experts and bettors alike. The true focus should be on making a profit long term.

It does not matter one iota if you win or lose your bet unless that result contributes to your long term profit. If you cash a ticket on a 2/1 favorite do you really think that contributes to your long term profit?

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 every 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. Betting on the top jockey in every race will never make you a 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 the next race. 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;

$$\text{Expected Value} = (\text{Probability of Winning} \times \text{Amount Won}) - (\text{Probability of Losing} \times \text{Amount Lost})$$

Hopefully, you can see that the probability of winning is directly related to the probability of losing. As a starting point on your journey to profitability you need to have a very good estimate of a horse's probability of winning the race. You need that probability for every horse in the race. I will call the very good estimate of winning true probability. 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.

$$\text{Expected Value} = (.33 \times \$10) - (.67 \times \$5)$$

$$\text{Expected Value} = (\$3.30) - (\$3.30) \text{ (rounded)}$$

$$\text{Expected Value} = \$0 \text{ (break even)}$$

So you can see if a horse has a 33% true 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% true 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:

$$\text{Expected Value} = (.33 \times \$20) - (.67 \times \$5)$$

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 true probability of winning of 33% will win once every three races. Your net results for three races betting \$5 in each race will be as follows given the expected value of \$3.30 from the example above:

race 1 = -\$5 loss (lose)

race 2 = -\$5 loss (lose)

race 3 = +20 profit (win)

Your net will be a profit 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! This is exactly what you need to focus on to become a long term, consistent winner

All you need to win consistently over the long term at the race track is a very accurate estimate of a horse's chances of winning. All you need to do is *ONLY* place a bet when you have an advantage!

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 extremely 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

Optimal Odds Is Why You Must Consider Subscribing To Winnermetrics Algorithm Factors

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 because that is the *ONLY* way to take advantage of the Expected Value Equation. If you want to win consistently, long term you *must* only bet when you have an advantage over the betting public by exploitation of the Expected Value Equation. Card counters found a way to get an advantage over the house by exploiting the Expected Value Equation. Winnermetrics gives you a similar mechanism to exploit one component of

the Expected Value Equation as well. Winnermetrics gives you control over the component known as probability of winning through Optimal Odds.

Optimal Odds is a very accurate estimate of a horse's probability of winning the race. Optimal Odds provides you a way to only place bets on undervalued horses with actual post time odds much higher than Optimal Odds. Optimal Odds effectively turns you into a card counter for horse racing. The principle is identical because both card counting and Optimal Odds gives you control over the Expected Value Equation. It is your job to take advantage of that control and only bet when you have an advantage by betting horses with actual post time odds much higher than Optimal Odds. If you only bet when you have an advantage over the betting public then you will be able to become a consistent, long term winner at the race track. If you bet on overbet horses going off at odds substantially below fair value then you cannot win at the race track. Ever!

You *must* have a source for very accurate estimates of every horse's probability of winning so you can exploit of the Expected Value Equation. You need the estimate for every horse in the race. Unfortunately, morning line odds are not even close to accurate enough to use. Of course, you will definitely want to use the most accurate source for probability of winning for every horse in the race 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 when compared to the Optimal Odds.

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 on science and makes complete sense once you understand that betting on horses is truly about making money and not picking winners.

In order to be successful betting on horses you will need to master the Expected Value Equation and then exploit the equation to your advantage. 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. It will be worth your time.

Optimal Odds

Optimal Odds is the heart and soul of Winnermetrics! Look for the column labeled "OO".

Optimal Odds ratings are very accurate estimates of each horse's chances of winning the race expressed in terms of odds. There is an Optimal Odds rating for every horse in the race. 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. Optimal Odds is what makes it possible for you to win money long term.

Optimal Odds is the probability of a horse winning the race. This is a component of the Expected Value Equation. Here is how you use Optimal Odds. Optimal Odds is expressed in terms of odds on the Winnermetrics Algorithm Factors sheets. Simply only bet when you have an advantage. You have an advantage when the actual post time odds are at least double Optimal Odds for any given horse. For example, if Optimal Odds for a horse is 3 that means 3/1. Therefore, you will only bet the horse if its actual post time odds are 6/1 or higher. It is that simple.

I cannot overemphasize how important it is to *ONLY* bet when you have an advantage. It just does not make sense at any other time. Why would you bet when you are at a disadvantage? Just think of the concepts of Edward Thorp. His mathematical research proved players have the

advantage over the house under certain conditions. Skilled card counters instilled massive amounts of fear in casinos all over the world. Similarly, Optimal Odds gives skilled horse racing algorithm bettors an advantage over the betting public under certain conditions. Those conditions are when the betting public undervalues a horse when compared to Optimal Odds.

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 of betting on horses. 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 a 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. Winnermetrics moves the focus to making money. Every single bet you make *must* be calculated to make a consistent, long term profit. If you do not follow that rule then you will never get over the hump.

There is only one way to get over the hump and win long term. 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 the required very accurate estimate 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.

You may be wondering why every horse is compared to thousands of similarly situated horses. The answer is mathematics and statistics in particular. Thorp used an historical analysis to determine that a player can actually gain an advantage over the casino. Thorp also determined exactly how to take use the advantage to beat the dealer.

Winnermetrics studied thousands of reasonably homogenous horses that were similarly situated in several factors such as distance and surface to find statistically significant factors and weights of those factors which contributed to being able to determine a horse's chances of winning the race. The work of Winnermetrics produced very reliable predictions of winning for every horse in the race. It is that prediction of win probability that enables a horse racing algorithm bettor to take advantage of the Expected Value Equation.

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 (predicted probability of winning) of 5/1 and going off at 10/1 you get the following:

$$\text{Expected Value} = (\text{Probability of Winning} \times \text{Amount Won}) - (\text{Probability of Losing} \times \text{Amount Lost})$$

Probability of winning at 5/1 is 1 win in 6 races =

$$1/6 = .1667$$

Probability of losing is $1 - .1667 = .8333$

Amount won \$5 at 10/1 = \$55 - \$5 = \$50

Amount lost = \$5

$$\text{Expected Value} = (.1667 \times \$50) - (.8333 \times \$5)$$

$$\text{Expected Value} = (\$8.34) - (\$4.17) \text{ (rounded)}$$

$$\text{Expected Value} = \$4.17 \text{ (nice profit)}$$

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 described 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 many 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.

Optimal Odds (OO) and Relative Strength Ratings (RSR) are the two critical horse racing algorithm scores in Winnermetrics research. Optimal Odds is critical to making a profit by exploiting the Expected Value Equation. Relative Strength Rating is critical to understanding the strength of the horse you want to bet. Here is a WARNING. Never bet one horse over another horse because of RSR. RSR gives you a sense of the ability of a horse and close ratings within a few points can be considered virtually identical. If you have a race where the highest RSR is, for example only, 55 then every horse in the race is weak for the requirements of the race and RSR score differences are not overly significant.

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 always all about *the 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.

We will cover the Winnermetrics Algorithm Factors sheets from left to right and explain what each factor is contained in the sheets. I will start off by saying, “Trust The Numbers”. I will explain the scores so they are useful to you. Do not try to replicate the numbers because I suspect no one will ever figure out how they are derived. It is an understatement to say they are calculated very differently. They are! That is why they work!

The Header Row

First comes the track initials followed by the distance in furlongs. Next comes the surface. The surface is broken down into dirt (D), turf (T), and artificial surfaces (A).

Winnermetrics research indicates two things about the racing surface. First, the type of artificial surface made no difference from one type of artificial surface to another type of artificial surface. There is a difference

in statistically significant factors from artificial surface to dirt to turf. Second, there is very little difference between a fast dirt track and a wet dirt track.

Next comes the class. The abbreviations are as follows:

M Maiden Claiming

MS Maiden Special Weight

C Claiming

A- Lower Level Allowance

A Allowance Average

A+ Allowance High Level and Stakes

The above class breakdowns are where the statistically significant factors and weights change. Therefore, for long term profit this was the appropriate breakdown.

FS Fishing Score

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. If you take a large number of winning prices for each Fishing Score and then determine the average payoff for each Fishing Score from 1 to 10 you will see a steady progression. The average for Fishing Score for FS = 1 will be about \$5 which is well below the national average payoff of approximately \$8. The average for Fishing Score for FS = 10 will be about \$14 which is well above the national average payoff. You will see a steady increase in the average payoff as the Fishing Score increases.

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 big fat fish!

The Scores From Left To Right

The first column is the program number. Next is the morning line odds. Then comes Optimal Odds (OO) which has already been covered. OO is followed by Relative Strength Rating (RSR) which has also been covered.

“CR” Score

This is a cumulative distance of each horse to the RSR leader. If the best RSR in the race is 82 and the horse you are looking at has an RSR of 72 then CR is 10 (82 - 72). When the RSR scores are high, above 70, then horses with a CR of 30 or more rarely win. If the RSR is lower then horses with a CR over 40 rarely win.

“E” Score

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. Do not be surprised to see numbers in the teens for very deep closers. 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 or 3 means the horse is likely to be competitive in the early part of the race. An “E” rating of 4, 5, or 6 means the horse is a little less likely to be competitive in the early part of the race. An “E” rating of 4, 5, or 6 means the horse is likely to run

mid-pack for the first third of the race and be what is often considered a presser. An “E” rating of 7 or higher 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” ratings. “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.

There is one more consideration using the “E” rating. The “E” rating for the horse you are looking at should be backed up logically by the other scores. For example, if the horse you are looking at has an “E” score of 5 then it should have a decent T2, MT, and MOM12 score. If a horse is going to win it must distinguish itself somewhere in the race. That place to set itself apart should be consistent with it’s “E” score.

“I” Score

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” Score

“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. TVP is especially helpful in maiden

claiming races and maiden special weight races, especially with first time starters. 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 or even higher. They will not all run well, but enough will run well to make you very happy.

“MM” Score

“MM” stands for momentum and double momentum - a 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 for one third of the race. A rating of “MM” means the horse is VERY likely to be a mover and a shaker during two thirds of 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” or “MM” in the race. The key here is to be alert to the “M” and “MM” rating and use it judiciously.

“C1” Score

“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.

One more thought. If all of the "C1" scores are in red in the Excel workbook (low 90's and lower) then the race may be considered weak. Horses who get on or very near the lead in a weak race have a distinct advantage.

"C2" Score

"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.

Be alert for a race where all the horses have low "C2" scores. That means every horse is going up in class. Remember what I said about weak races.

“T” Scores

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 theoretical 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” Scores

The most important columns in the “BL” section are BL1, MT, and MS. BL1 is where the horse should start. MT is the momentum into the turn. MS is the momentum in the stretch. 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” Scores

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 *ONLY!* MOM1 has nothing to do with MOM2. MOM2 is the second third of the race and MOM3 is the final third of the race. More importantly, the ratings are NOT continuous or related to each other. 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.

MOMA Scores

MOM1A, MOM2A, and MOM3A is an effort to show what the race may actually look like cumulatively. Just remember that race is against the mythical horse. Please be aware the mythical horse may be different for every horse in the race. There are certain slight adjustments that are made to level the playing field for every horse.

In every race one horse is projected to be the leader in MOM1A. MOM1A is the first third of the race. After the projected leader every other score may be in red in the Excel workbook. That means the horse has a positive 5 or higher for MOM2A in the second third of the race. The same goes for MOM3A and the final third of the race. When there is a sea of red then one of the few earlier horses usually win even if MOM1A is red. Many of those winners are absolute bombers.

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.

AP - Average Pace

AP is designated in feet per second. AP is a very powerful rating. AP was considered the best single rating from Dr. Sartin. AP is a measure of the averaged pace throughout the race. Higher is better.

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. However, TE is very useful in sprints. TE is a little less helpful in routes. You always have to be aware of horses rounding into form, especially in routes. In that case the TE will be lower.

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!

Help

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