

## PS 133: Are Slots Random?? Live | Maine Slots in 2021

### Opening

Hello! Today's episode #133 of the Professor Slots podcast discusses, are slots random? Plus, in this episode, I'll be covering the current state of slot machine casino gambling in the great U.S. state of Maine.

Thank you for joining me for the Professor Slots podcast show. I'm Jon Friedl and this is the podcast about slot machine casino gambling. It is where I provide knowledge, insights, and tools for helping you improve your slot machine gambling performance.

### On Last Week's Episode...

In case you missed it, on my last episode I went over how slots is a thinking person's game from my weekly live stream Q&A session on YouTube.

Further, I reviewed Louisiana slot machine casino gambling in 2021.

I hope you enjoyed listening to my last episode as much as I enjoyed making it for you.

### Call to Action (add sound effect afterward)

Remember to visit [professorslots.com/subscribe](https://professorslots.com/subscribe) to get my Free Report Revealing ... The top 7 online resources for improving your gambling performance, including the one I've used as a top-tier slot machine casino gambler.

### YouTube Q&A Session from Saturday, March 20, 2021

Here's the audio recording of my latest live stream Q&A session.

#### OPENING

Hello, slots enthusiasts! How are you? I'm Jon Friedl. Welcome to Professor Slots, a channel where you learn to play slots smarter and leave the casino with your winnings.

It's great to see you all here again for another Professor Slots podcast episode and live stream. If you're with us live, be sure to say hello, and ask your slots-related questions! I'll check in with the live chat a little later in the show. Oh, and a special thanks to Paula for being our moderator today. Thanks, Paula!

Thanks also to the many new slots enthusiasts participating in this weekly live stream or download my podcast episodes. It's great to have you all here.

Today we're going to be diving into a question I get all the time, "Are slot machines random?"

BODY

#### INTRODUCTION TO ROULETTE WHEELS

After I explain to my audience that casinos remotely adjust the odds of winning on individual slot machines every day, usually multiple times each day, I'm often asked by irate fans, "You're saying the slot machines aren't totally random??"

My reply is usually along the lines of, "Oh, slot machines are random. But their spinning reels aren't like roulette wheels."

While this comparison enlightens some slots enthusiasts, you deserve a better explanation.

#### ROULETTE WHEEL RANDOMNESS

A roulette wheel is a random number generator. A dealer spins the numbered wheel in one direction while flinging a small white ball in the opposite direction to ride along its edge.

Eventually, in a rather exciting fashion, both the wheel and ball slow down and stop moving. Just before they both stop moving, the ball ends up in a numbered recess on the wheel.

With a balanced and level wheel, and no abrupt braking applied when turning, this a random process. Like flipping a coin, there is an equal chance for each possible outcome. In other words, the ball is as likely to end up in any one slot as any other slot.

This randomness, like flipping a coin or rolling dice, is what most people consider to be the only type of random behavior. Yet what if the rolling die is misshapen, the coin bent, or the roulette wheel not perfectly level? Are these still random processes?

Yes, they are random. However, what's changed is that there is no longer an equal chance for each possible outcome. For example, a malformed six-sided die where every side has a different surface area is still random, but different surface areas correlate to the likeliness of an outcome.

For the misshapen die, there is still a chance for each possible outcome, but no longer an equal chance.

## RNGS IN SLOT MACHINES

Let's incorrectly consider the physical reels on a non-video slot machine turn freely like roulette wheels. Meaning, they come to a halt due to axle friction and air resistance. Other setup conditions for this example include:

- Three reels
- A single pay line for one possible reel combination outcome
- Twelve stops per reel, i.e., twelve symbols per reel

What are the odds of winning? First, there are  $12 \times 12 \times 12$  equals 1,728 possible reel combination outcomes. Next, let's estimate there are 100 possible winning reel combinations.

The odds of winning, just like throwing a die, is possible winning outcomes divided by total possible outcomes. Using the above conditions, the odds of one outcome is  $100/1,728$  or just under 6%.

If there was an equal chance for every outcome, including the 1,628 non-winning outcomes, there's a 6% chance of getting one of the 100 winning reel combinations.

Further, because all outcomes have an equal chance of  $1/1,728$  or 0.06%, the top jackpot reel combination is just as likely as any other identical symbols reel combinations, such as three 1-bar symbols worth far less than the top jackpot.

Since theoretical payout limits are often a legal minimum of 75% and return statistics usually near 90%, it's obvious a 6% chance of winning in our model isn't how slot machines work.

Slot machines aren't random like roulette wheels. Instead of the type of randomness where there is an equal chance of winning like roulette wheel or perfect die, slot machines use the type of randomness from weighted averages.

## INTERLUDE

Let's check in with the Live Chat to briefly say hello...

That was excellent!

If I've already helped you make money at slots, give me a tip using the dollar-sign icon at the bottom of the live chat window.

Here's how that works. Simply click on the dollar sign icon and select the Super Chat option. The Super Sticker option also works, but it's not as easy. Under the Super Chat option, you'll see a sliding scale to choose an amount. Or just type in the exact amount of

your support. Directly under that amount is where you type a message everyone can see. Finally, click the Buy and Send button where you'll be taken to enter your card info. Thank you so much for your support!

Now let's get back to ...

BODY

#### AVERAGE VS. WEIGHTED AVERAGE

If you roll a perfectly shaped die or spin a balanced roulette wheel, you have an equal chance at every possible outcome. Because that chance is so low, less than 6% to get a winning reel combination, slots machines were not be popular to play. At all.

Only 6% chance to win would mean slots machines would be a historic oddity few would remember. But instead, they are the mostly game in modern casinos. By far.

Game designers don't determine the odds of winning. Instead, they create reel symbols, bonus games, and game rules to create the best possible player appeal. When they finish their design work, one of their obligations is to hand over a list of game outcomes.

This list a table of reel symbol combinations with how many credits won. As already explained for an old-style slot machine, most of these outcomes are a zero win.

The game designer's employer takes this table and removes all outcomes which have the same win amount. Not only are all but one of the many zero returns removed, it removes all other duplicates. This leaves a much shorter list ranked in order from a zero win to the top jackpot.

At this point, this other team the game designers hand their work off to applies a weighted average to this list of outcomes. Let's call them the Odds Team. Their work is like the misshapen die discussed previously.

For a slot machine, there might be 100 possible winning outcomes. Adding an outcome for zero, the Odds Team is essentially creating a misshapen die with 101 sides.

Each side of this misshapen 101-sided die would have a different surface area, with the zero-win result having the largest area. While large, this surface area for the zero side is much smaller than it would have been otherwise.

Dropping the die analogy, this Odds Team creates this list of weights to apply a weighted average to the output of the Random Number Generator (RNG). Historically, before central servers arrived in 2012, they did this six times. Yes, they generated six sets of weighted averages.

Before central servers, these weighted averages were loaded into slot machines for one set to be selected by the casino at any given time. But they weren't programmed into the RNG, not exactly. This is what that old 2009 video with 8 million views trying to explain this gets wrong.

Before central servers, an army slot mechanics would regularly open a slot machine and manually enter a code associated with one of these sets of weighted average. They did this about once every seven to ten days.

#### PROBABILITY DISTRIBUTIONS MATTER

With central servers, casinos were able to reduce their army of slot machine mechanics to only enough employees to perform maintenance of their slot machines. Like cleaning fans, replacing broken buttons, or installing new slot machines after removing ones. Gone are the long days spent up updating the odds of winning on individual slot machines.

Casinos reduced their operational costs by reducing the number of slot machine mechanics needed. This was the second-greatest benefit to them for switching to a central computer server remotely updating the odds of individual slot machines.

The greatest advantage for casino was how fast the central server can remotely update the odds. Instead of seven to ten for slots mechanics, the server can update every slot machine daily, hourly, or more often.

But to this they need two things. They need sets of weighted averages, also known as probability distributions in the field of statistics, and a plan. Casinos need a business plan. And slot machine manufacturers, who also make central computer serves for casinos, are happy to provide them.

#### CLOSING

Let's switch over to the Live Chat again and see what questions they might have...

Pre-selling Online Slots Course at <https://courses.professorslots.com>

Original beta testers from 1-year-ago, you know who you are: Don't sign up yet, because I'll be sending you a coupon this weekend.

Memberships: For those of you who are top-tier in my YouTube Membership, we need to figure out the best time for our group meetings on Zoom. I'll send you a message soon about what works for you.

Thanks for a great show. If you're watch this video later, you'll see a playlist/video I've created on ...

If you're listening on the podcast, stick around as we'll be moving into the next segments of the show! And, as always, have fun, be safe, and make good choices!

## Call to Action (add sound effect afterward)

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## Introduction

This is the next segment of the show on slot machine casino gambling. Here, I provide a brief overview of the current state of gambling in a U.S. state, territory, or the federal district emphasizing, by far, anything of interest to slot machine casino gamblers.

Up next is Maine slot machine casino gambling in 2021. Here goes!

Maine slot machine casino gambling consists of two pari-mutuel racetracks with slot machines. Bingo is available throughout the state.

## Relevant Legal Statutes on Gambling in Maine

The minimum legal gambling age in Maine depends upon the gambling activity:

- Land-Based Casinos: 21
- Poker Rooms: 21
- Bingo: 16
- Lottery: 18
- Pari-Mutuel Wagering: 18

In 2003, Maine offered a referendum to its voters to approve slot machines at racetracks. The residents of Bangor approved it, but residents of the city of Scarborough did not. To this day, the racetrack in Scarborough does not offer slot machines.

In 2010, voters in the town of Oxford approved slot machines for their casino. The next year, the casino in Bangor approved table games.

Maine's legal rights with regards to tribal gaming are unique relative to other states. The Indian Gaming Regulatory Act (IGRA) of 1988 does not apply as it came after the Maine Indian Claims Settlement Act of 1980. As a result of this legal precedent, gaming on tribal land in Maine is subject to state law rather than the federal IGRA.

## Slot Machine Private Ownership in Maine

Next up is a usually short statement about slot machine private ownership, which I have included in case you live in this U.S. state and are considering owning a slot machine. Here it is:

In Maine, it is legal to own slot machines privately without regard to its year of manufacture.

## Gaming Control Board in Maine

The State of Maine gaming control commission is its Gambling Control Unit.

## Casinos in Maine

In this section, I'll discuss Maine gambling establishments.

Maine has two commercial racetrack casinos with slot machines. The largest casino in Maine is Oxford Casino Hotel with 1,000 gaming machines. The second-largest casino is Hollywood Casino Bangor with 923 gaming machines.

## Non-Tribal Casinos in Maine

The State of Maine has two racetracks with slot machines including Hollywood Casino Bangor, 136 miles northeast of Portland and Oxford Casino Hotel, 46 miles north of Portland.

## American Indian Casinos in Maine

Maine has four federally recognized American Indian tribes. State law permits them to offer high-stakes bingo games without restriction to the size of prizes.

## Other Gambling Establishments

As an alternative to enjoying Maine slot machine casino gambling, consider exploring casino options in a nearby state. Bordering Maine is:

- Northwest: Quebec, a Province of Canada
- East: New Brunswick, a Province of Canada
- South: The Atlantic Ocean
- West: New Hampshire

To visit any of my articles on these U.S. states, simply visit ProfessorSlots.com followed by its two-letter postal designation. For example, my New Hampshire slots article is available at ProfessorSlots.com/NH.

## Our Maine Slots Community Facebook Group

Are you interested in sharing and learning with other slots enthusiasts in Maine? If so, join our Maine slots community on Facebook at [professorslots.com/FBME](https://www.facebook.com/professorslots.com/FBME). All you'll need is a Facebook profile to join this private Facebook Group freely.

There, you'll be able to privately share your slots experiences as well as chat with players about slots gambling in or near Maine. Again, use this convenient link I've created to go directly to our Group on Facebook: [professorslots.com/FBME](https://www.facebook.com/professorslots.com/FBME). Join us!

## Payout Returns in Maine

Maine law requires theoretical payout to have a minimum limit of 89% on all electronic gaming machines. This state law requirement applies to any Class II bingo-style gaming machines offered by Maine's tribes.

The State of Maine's Gambling Control Unit offers return statistics at Casino Revenue Distribution. These revenue reports are monthly except for the most recent month, which is weekly.

In these reports, Average Pay Back % to Players is Maine casino's slot machine player win%. For January 2021, the casino-specific monthly player win percentages were:

- Hollywood Bangor: 91.2%
- Oxford: 91.7%

## Summary of Maine Slots in 2021

In summary, Maine slot machine casino gambling consists of two pari-mutuel wagering racetracks with slot machines. A third racetrack offers pari-mutuel wagering without electronic gaming machines.

## Annual Progress in Maine Slot Machine Casino Gambling

Over the last year, there has been little change to slot machine gambling in the State of Maine.

## Call to Action (add sound effect afterward)

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## On the Next Episode of Professor Slots

Part I of the next episode of the Professor Slots podcast will include a live stream Q&A session on YouTube.

Remember, my weekly Q&A session on YouTube is on Saturdays from Noon until 1 p.m. Eastern Time. Bring whatever slots questions you have, and I'll do my best to answer them.

An easy-to-remember link to my YouTube channel is [YouTube.com/ProfessorSlots](https://YouTube.com/ProfessorSlots). Feel free to stop by anytime during my hour-long live Q&A session.

Part II of the next episode of the Professor Slots podcast is another brief overview of the current state of gambling in a U.S. state, territory, or the federal district. Next time, I'll be talking to you about the great U.S. state of Maryland.

## Closing (closing music)

That's the end of another great episode of the Professor Slots podcast. Thanks so much for listening!

Show notes for this episode are on my website at <https://professorslots.com/episode133>.

I plan to have the next episode come out very soon for you, where I'll have more amazing content for the show.

Until the next episode: Have fun, be safe, and make good choices! Bye!