

# research snapshot

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## Stopping when you're ahead: A winning strategy

### What this research is about

The use of self-imposed, or voluntary, limits on time and money losses are recognized as responsible gambling strategies. But the idea of 'win limits' has received little study to date. A win limit means a player would stop gambling when they were ahead by a predetermined monetary amount, such as \$100, or a time limit, such as 30 minutes. This study examined the financial outcomes of different 'stopping rules' including a time limit, loss limit, and a win limit. The researchers used a computer to simulate millions of slot machine plays to test each type of limit. The results of the simulation suggest that using a monetary win limit with a loss limit improves the player's outcome from gambling. The authors suggest that win limits may be a novel, promising responsible gambling strategy.

### What the researchers did

The researchers used a computer simulation that replicated a simple, single-line, three-reel slot machine game, for which the payout rate (the percentage of money the slot machine pays back as winnings) was 95%. The simulation used a random number generator to generate a number for each play or 'spin'. They used 900 simulated players, who each

### What you need to know

This research focused on the use of self-imposed win limits when playing games of random chance, such as slot machines. The simulations revealed that win limits improve the likelihood of a gambler leaving as a winner. Using win limits may be a beneficial strategy in reducing gambling losses, and gambling harm as a result. The term 'win limit' may be counter-intuitive as it is meant to prevent losses and not promote wins. It may be helpful to use a positive term such as 'prize target' or 'prize cash-out point' to raise interest and understanding from players.

made 5000 spins, generating 4.5 million simulated slot machine plays. Each spin was programmed to take 6 seconds, meaning each player could gamble up to 8.3 hours with no limits used. Limits on time, wins, or losses, decreased the number of plays and length of play.

### What the researchers found

The results of using five different types of play limits are shown in the table below. The data show that using a win limit provided the greatest chance (48%) of leaving the casino a winner. Win limits allow

| Limit imposed                         | Chance of winning | Average \$ result | Maximum loss | Maximum win |
|---------------------------------------|-------------------|-------------------|--------------|-------------|
| No limits imposed                     | 18%               | -\$251            | -\$843       | \$419       |
| Time limit 1 hour                     | 35%               | -\$30             | -\$220       | \$233       |
| \$100 loss limit                      | 7%                | -\$76             | -\$100       | \$382       |
| \$100 win limit                       | 48%               | -\$153            | -\$858       | \$186       |
| \$100 loss limit AND \$100 win limit* | 31%               | -\$35             | -\$100       | \$162       |

\*In this scenario, the player would stop gambling when they were \$100 ahead or \$100 behind, whichever occurred first.

players to gamble for longer compared to the other limits, yet also resulted in the largest maximum loss.

#### How you can use this research

Results suggest win limits to help inform programs addressing problem gambling. It may also serve to inform ‘positive play’, where the goal is to minimize potential monetary losses and financial stress. The use of a win limit reduces average gambling losses and improves the chance that a player will leave the casino as a winner. The use of win limits along with loss limits may also help to decrease loss.

#### About the researchers

**Douglas Walker** is a professor in the Department of Economics at the College of Charleston, USA. His primary research interest is in the economic and social impacts of casino gambling. **Stephen Litvin** is affiliated with the Department of Hospitality and Tourism at the College of Charleston. **Russell Sobel** is affiliated with the School of Business Administration at The Citadel, Charleston, USA. **Renée St-Pierre** is with the International Centre for Youth Gambling Problems and High-Risk Behaviors at McGill University, Montreal, Canada. Questions about this study can be addressed to Dr. Walker at [walkerd@cofc.edu](mailto:walkerd@cofc.edu).

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#### Keywords

Win limits, Responsible gambling, Loss limits, Harm reduction, Positive play

from gambling. Our goal is to support evidence-informed decision making in responsible gambling policies, standards and practices. The work we do is intended for researchers, policy makers, gambling regulators and operators, and treatment and prevention service providers.

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