Winning lottery strategy proposed by professor

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The record-breaking $380 million Mega Millions multistate lottery jackpot drawing this week had two winners and may inspire more people to take a chance on being a millionaire.

But Romel Mostafa, PhD, visiting professor of strategy at the Olin Business School at Washington University in St. Louis, cautions lottery players on the odds of winning in an interview with NPR's Michel Martin, broadcast Jan. 4. (Link to audio)

"People really do get attracted to the large jackpots," Mostafa says. "One lottery ticket may cost them peanuts, but they have a very small probability of winning."

The odds of selecting a winning jackpot ticket in this week's Mega Millions lottery was 1-in-176 million chances.

Mostafa told NPR that strategies of playing odd or even numbers are not necessarily effective. Buying multiple tickets only improves the odds of winning slightly, according to Mostafa who says players must bank on a significant amount of luck to win.

"Even if you bought all the lottery tickets for a drawing," he said on NPR's Tell Me More, "and you had a 100 percent chance of winning — you would make less money than all the prizes. There are administrative costs and about 30 percent of the lottery sales will be appropriated by state taxes. So, playing lotteries will always have a negative expected

value."

Research shows that the poor spend a higher percentage of their income on lotteries than do the rich.

"There is also evidence to suggest that low income families cut back on expenditure on food and rent when state lotteries are introduced," Mostafa says.

In a study of who plays lotteries and why, Mostafa and colleagues at Carnegie Mellon University found that low-income individuals may fail to fully account for the long-term, cumulative cost of playing lotteries if they decide to purchase tickets one at a time.

"We found that when purchasing decisions are made myopically — buying one lottery ticket at a time — participants end up buying significantly more tickets, in fact 50 percent more tickets," Mostafa says. "But when individuals consider the cumulative effect of buying tickets, they are less likely to participate in the lottery because they know buying the tickets is going to hurt them financially."

"What comes out pretty clearly from our research is that lotteries can be powerful motivators for low income people," Mostafa says.

He proposes using lotteries in constructive ways to encourage financially beneficial behavior.

For instance, Mostafa proposes introducing lotteries in conjunction with savings accounts.

"If customers make a certain amount of deposits every month, they could be considered for a monthly drawing," he says. "This could increase savings of individuals and deposits of the banks."

Odds are that's a win-win situation.

Provided by Washington University in St. Louis