

NEVADA TABLE GAMES: HISTORICAL HOLD PERCENTAGE VARIATIONS

ANNUAL AND MONTHLY HOLD PERCENTAGES, 1992-2018

CENTER FOR GAMING RESEARCH, APRIL 2018

Hold percentage—the portion of money gambled that the casino retains—has a huge impact on casino revenues. As “games of chance,” the chief table games offered in Nevada casinos (Twenty-One, Craps, Roulette, and Baccarat) are generally favorable to the house, but their exact hold percentage can vary considerably, even when decisions are spread out over a year.

Frequently, when monthly results are released, analysts will make reference to “lower than average hold percentage” impacting revenues. This report is designed to provide a handy reference: what are the “average” hold percentages for the major Nevada table games? And how far from that average have results typically varied?

Executive Summary

The following table shows the average, maximum, and minimum monthly hold percentages for the period January 2004 through March 2018 for four table games:

Monthly Statewide Hold Percentages, 2004-2018

| | 21 | Craps | Roulette | Baccarat |
|----------|-------|-------|----------|----------|
| Average | 12.10 | 13.44 | 18.78 | 12.27 |
| High | 16.65 | 18.81 | 25.70 | 19.53 |
| Low | 8.23 | 8.03 | 9.17 | 3.55 |
| Variance | 8.42 | 10.78 | 16.53 | 15.98 |
| Std Dev | 1.43 | 1.81 | 3.23 | 2.71 |
| Exp Low | 10.67 | 11.64 | 15.55 | 9.55 |
| Exp High | 13.53 | 15.25 | 22.01 | 14.98 |

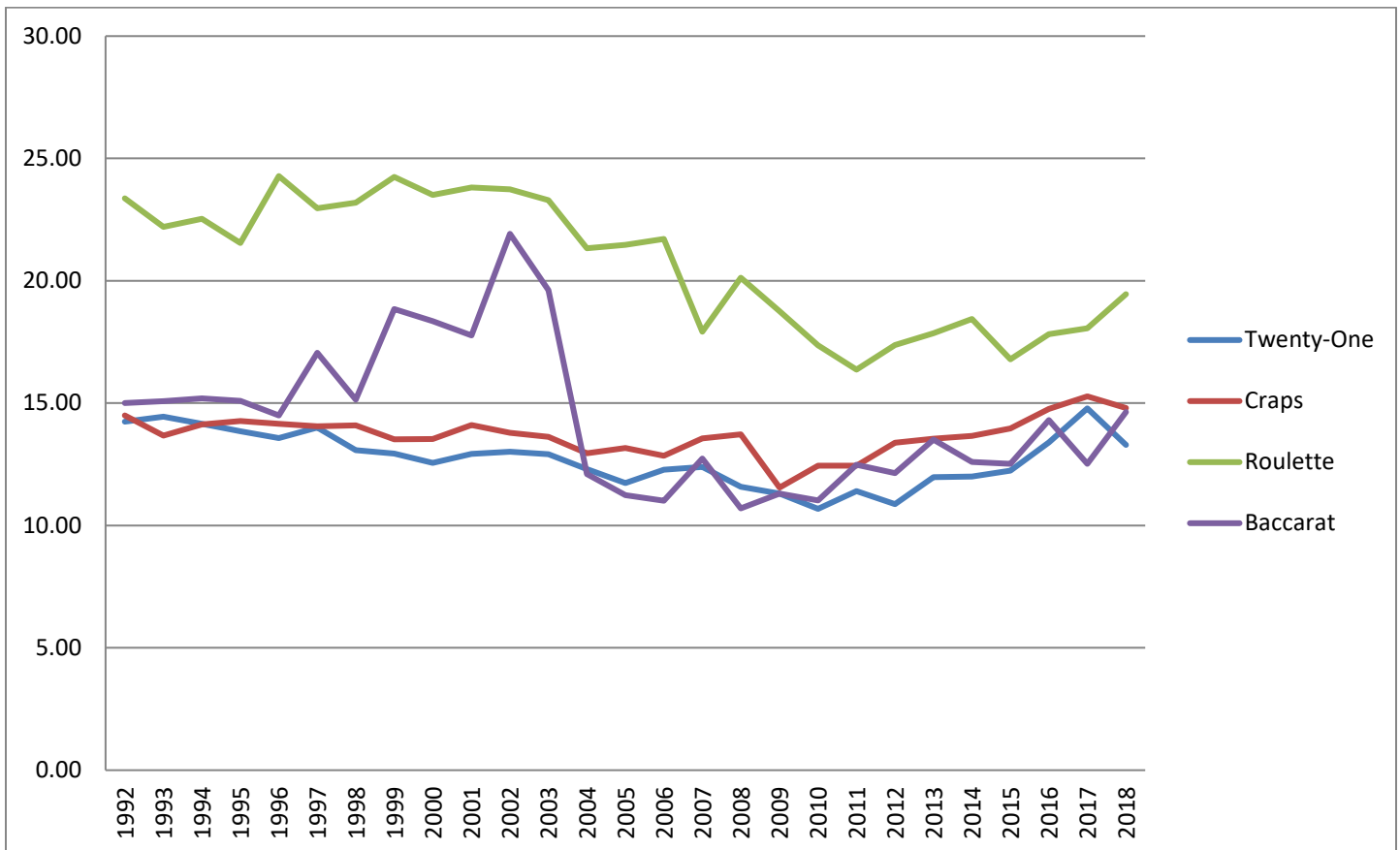
Any monthly result that deviates significantly from these averages will impact monthly gaming revenues in a way that may distort the true level of play.

As can be seen by the ranges of variation, Twenty-One, even though it has the highest level of skill out of any of the four games studied here, had the smallest variance, while baccarat had the greatest.

Changes over Time

Looking at the graph and data set for annual hold percentage averages from 1992 to 2018, it becomes clear that Nevada table games have trended towards lower hold over the past 26 years.

Annual Statewide



Annual statewide hold percentage data on next page

Annual Statewide Hold Percentages, 1992-2018

| | Twenty-One | Craps | Roulette | Baccarat |
|------|------------|-------|----------|----------|
| 1992 | 14.25 | 14.50 | 23.37 | 15.00 |
| 1993 | 14.45 | 13.67 | 22.21 | 15.08 |
| 1994 | 14.15 | 14.13 | 22.54 | 15.19 |
| 1995 | 13.85 | 14.27 | 21.55 | 15.09 |
| 1996 | 13.57 | 14.16 | 24.28 | 14.50 |
| 1997 | 14.00 | 14.05 | 22.97 | 17.06 |
| 1998 | 13.08 | 14.09 | 23.19 | 15.14 |
| 1999 | 12.94 | 13.52 | 24.25 | 18.84 |
| 2000 | 12.56 | 13.53 | 23.51 | 18.35 |
| 2001 | 12.92 | 14.11 | 23.82 | 17.77 |
| 2002 | 13.01 | 13.79 | 23.74 | 21.92 |
| 2003 | 12.91 | 13.62 | 23.30 | 19.62 |
| 2004 | 12.31 | 12.95 | 21.33 | 12.10 |
| 2005 | 11.73 | 13.17 | 21.47 | 11.24 |
| 2006 | 12.28 | 12.85 | 21.71 | 11.01 |
| 2007 | 12.40 | 13.56 | 17.92 | 12.74 |
| 2008 | 11.58 | 13.72 | 20.13 | 10.70 |
| 2009 | 11.31 | 11.55 | 18.76 | 11.30 |
| 2010 | 10.68 | 12.45 | 17.36 | 11.03 |
| 2011 | 11.41 | 12.44 | 16.37 | 12.48 |
| 2012 | 10.87 | 13.38 | 17.37 | 12.14 |
| 2013 | 11.98 | 13.55 | 17.86 | 13.51 |
| 2014 | 12.00 | 13.66 | 18.44 | 12.60 |
| 2015 | 12.24 | 13.96 | 16.80 | 12.52 |
| 2016 | 13.39 | 14.77 | 17.82 | 14.30 |
| 2017 | 14.79 | 15.28 | 18.06 | 12.53 |
| 2018 | 13.30 | 14.81 | 19.45 | 14.63 |

Monthly statewide hold percentage data begins on next page

Monthly Statewide Hold Percentages, 2004-2018

| | Twenty-One | Craps | Roulette | Baccarat |
|--------|------------|-------|----------|----------|
| Jan-04 | 13.33 | 11.67 | 23.43 | 11.14 |
| Feb-04 | 13.47 | 13.93 | 25.70 | 19.53 |
| Mar-04 | 12.57 | 14.21 | 20.82 | 12.54 |
| Apr-04 | 13.12 | 13.06 | 18.65 | 8.89 |
| May-04 | 13.36 | 13.29 | 20.80 | 17.55 |
| Jun-04 | 12.96 | 13.44 | 19.66 | 11.45 |
| Jul-04 | 10.46 | 12.90 | 20.56 | 14.11 |
| Aug-04 | 12.34 | 12.78 | 22.57 | 13.27 |
| Sep-04 | 9.85 | 13.67 | 16.50 | 14.44 |
| Oct-04 | 11.65 | 11.13 | 23.24 | 11.72 |
| Nov-04 | 13.13 | 13.24 | 22.38 | 6.40 |
| Dec-04 | 11.62 | 12.42 | 22.02 | 10.19 |
| Jan-05 | 11.55 | 11.40 | 23.48 | 16.41 |
| Feb-05 | 12.31 | 12.58 | 19.94 | 7.76 |
| Mar-05 | 12.70 | 15.13 | 22.13 | 14.32 |
| Apr-05 | 11.19 | 12.96 | 20.18 | 17.33 |
| May-05 | 11.35 | 11.95 | 19.96 | 12.77 |
| Jun-05 | 13.43 | 17.29 | 24.98 | 13.30 |
| Jul-05 | 12.52 | 12.37 | 22.50 | 13.08 |
| Aug-05 | 11.20 | 10.91 | 19.05 | 8.36 |
| Sep-05 | 13.95 | 13.40 | 18.76 | 9.55 |
| Oct-05 | 9.65 | 13.21 | 21.58 | 10.64 |
| Nov-05 | 10.75 | 14.43 | 21.75 | 9.55 |
| Dec-05 | 10.82 | 12.88 | 24.44 | 10.80 |
| Jan-06 | 13.72 | 14.15 | 22.26 | 11.01 |
| Feb-06 | 11.47 | 13.41 | 23.76 | 11.89 |
| Mar-06 | 11.93 | 12.87 | 21.11 | 10.29 |
| Apr-06 | 12.91 | 12.29 | 19.73 | 14.52 |
| May-06 | 12.42 | 11.30 | 22.54 | 13.17 |
| Jun-06 | 11.19 | 12.81 | 18.95 | 8.81 |
| Jul-06 | 11.84 | 12.42 | 21.34 | 11.62 |
| Aug-06 | 11.15 | 11.74 | 22.31 | 9.69 |
| Sep-06 | 12.89 | 13.58 | 21.65 | 13.61 |
| Oct-06 | 12.41 | 14.52 | 19.66 | 5.50 |
| Nov-06 | 12.58 | 13.19 | 23.34 | 11.21 |
| Dec-06 | 13.04 | 12.04 | 23.13 | 11.55 |
| Jan-07 | 12.53 | 14.07 | 17.64 | 15.23 |
| Feb-07 | 12.69 | 14.93 | 18.41 | 11.36 |
| Mar-07 | 13.00 | 13.25 | 20.20 | 9.91 |
| Apr-07 | 12.91 | 13.59 | 12.31 | 13.56 |
| May-07 | 11.89 | 12.40 | 21.52 | 11.27 |

| | Twenty-One | Craps | Roulette | Baccarat |
|--------|------------|-------|----------|----------|
| Jun-07 | 12.74 | 11.68 | 20.44 | 11.22 |
| Jul-07 | 13.61 | 15.90 | 22.26 | 14.99 |
| Aug-07 | 12.08 | 11.50 | 19.87 | 14.51 |
| Sep-07 | 12.72 | 15.35 | 12.32 | 11.06 |
| Oct-07 | 12.62 | 13.16 | 16.09 | 14.13 |
| Nov-07 | 11.90 | 13.48 | 16.67 | 13.04 |
| Dec-07 | 10.20 | 13.37 | 19.43 | 12.33 |
| Jan-08 | 11.58 | 14.83 | 25.41 | 12.82 |
| Feb-08 | 11.55 | 14.42 | 24.36 | 11.19 |
| Mar-08 | 11.24 | 14.28 | 18.38 | 9.56 |
| Apr-08 | 13.59 | 13.97 | 20.63 | 14.47 |
| May-08 | 9.97 | 12.71 | 18.35 | 11.27 |
| Jun-08 | 11.75 | 10.91 | 17.69 | 13.75 |
| Jul-08 | 11.37 | 13.56 | 18.41 | 9.60 |
| Aug-08 | 10.36 | 16.37 | 19.91 | 10.33 |
| Sep-08 | 12.35 | 10.66 | 20.74 | 13.41 |
| Oct-08 | 12.69 | 14.05 | 21.00 | 8.20 |
| Nov-08 | 11.43 | 14.51 | 18.89 | 10.45 |
| Dec-08 | 11.42 | 13.92 | 18.78 | 7.19 |
| Jan-09 | 11.22 | 12.91 | 15.73 | 10.77 |
| Feb-09 | 12.91 | 11.75 | 19.43 | 10.94 |
| Mar-09 | 11.67 | 13.33 | 23.81 | 7.15 |
| Apr-09 | 11.64 | 12.47 | 20.48 | 9.86 |
| May-09 | 10.56 | 11.70 | 19.57 | 13.24 |
| Jun-09 | 11.89 | 11.03 | 19.35 | 13.00 |
| Jul-09 | 11.04 | 13.24 | 23.11 | 12.76 |
| Aug-09 | 10.98 | 9.72 | 13.48 | 10.60 |
| Sep-09 | 10.77 | 12.45 | 22.80 | 11.85 |
| Oct-09 | 10.21 | 15.85 | 15.85 | 9.21 |
| Nov-09 | 12.29 | 10.42 | 16.75 | 13.54 |
| Dec-09 | 10.46 | 8.03 | 15.55 | 11.85 |
| Jan-10 | 10.46 | 11.01 | 15.74 | 12.89 |
| Feb-10 | 11.15 | 11.62 | 21.14 | 17.08 |
| Mar-10 | 11.49 | 10.64 | 14.77 | 8.43 |
| Apr-10 | 12.60 | 11.69 | 18.21 | 8.48 |
| May-10 | 10.37 | 12.51 | 19.12 | 8.40 |
| Jun-10 | 10.51 | 8.65 | 18.64 | 3.55 |
| Jul-10 | 10.84 | 11.94 | 19.13 | 10.01 |
| Aug-10 | 9.50 | 16.69 | 17.86 | 8.31 |
| Sep-10 | 11.00 | 12.35 | 18.66 | 13.14 |
| Oct-10 | 11.14 | 11.15 | 14.19 | 18.37 |
| Nov-10 | 10.58 | 13.64 | 15.15 | 12.15 |
| Dec-10 | 8.65 | 17.56 | 17.02 | 11.47 |

| | Twenty-One | Craps | Roulette | Baccarat |
|--------|------------|-------|----------|----------|
| Jan-11 | 12.29 | 11.95 | 19.48 | 10.94 |
| Feb-11 | 10.83 | 12.89 | 15.53 | 11.70 |
| Mar-11 | 11.79 | 13.88 | 18.10 | 11.56 |
| Apr-11 | 12.33 | 14.21 | 17.56 | 11.66 |
| May-11 | 11.97 | 9.59 | 18.85 | 12.21 |
| Jun-11 | 11.20 | 15.16 | 14.49 | 15.58 |
| Jul-11 | 10.92 | 8.55 | 12.62 | 9.76 |
| Aug-11 | 10.49 | 14.37 | 22.00 | 12.01 |
| Sep-11 | 11.25 | 12.41 | 15.60 | 12.65 |
| Oct-11 | 11.09 | 10.17 | 10.75 | 18.78 |
| Nov-11 | 10.91 | 14.94 | 18.78 | 13.60 |
| Dec-11 | 11.55 | 12.26 | 16.42 | 10.92 |
| Jan-12 | 11.69 | 10.11 | 18.33 | 12.49 |
| Feb-12 | 12.84 | 13.25 | 19.89 | 14.33 |
| Mar-12 | 9.90 | 12.02 | 11.57 | 8.02 |
| Apr-12 | 12.26 | 15.68 | 18.27 | 10.12 |
| May-12 | 8.59 | 11.74 | 16.26 | 8.10 |
| Jun-12 | 10.57 | 14.50 | 13.07 | 12.35 |
| Jul-12 | 12.28 | 14.3 | 11.99 | 16.03 |
| Aug-12 | 10.73 | 12.85 | 21.72 | 11.96 |
| Sep-12 | 10.42 | 16.33 | 14.3 | 11.07 |
| Oct-12 | 12.01 | 13.42 | 22.78 | 14.65 |
| Nov-12 | 8.23 | 12.67 | 22.84 | 12.71 |
| Dec-12 | 11.19 | 14.73 | 21.93 | 11.17 |
| Jan-13 | 12.63 | 11.35 | 18.71 | 12.06 |
| Feb-13 | 13.89 | 15.77 | 19.02 | 16.56 |
| Mar-13 | 12.54 | 11.84 | 17.88 | 10.5 |
| Apr-13 | 10.5 | 11.56 | 23.43 | 11.96 |
| May-13 | 10.78 | 13.81 | 21.32 | 11.14 |
| Jun-13 | 10.82 | 15.49 | 15.99 | 7.44 |
| Jul-13 | 11.48 | 12.14 | 19.25 | 11.42 |
| Aug-13 | 12.11 | 16.05 | 21.07 | 18.85 |
| Sep-13 | 12.77 | 12.08 | 17.18 | 15.23 |
| Oct-13 | 11.6 | 15.19 | 9.17 | 13.29 |
| Nov-13 | 13.52 | 13.34 | 17.93 | 12.25 |
| Dec-13 | 11.11 | 13.94 | 15.66 | 15.14 |
| Jan-14 | 13.24 | 13.18 | 16.56 | 8.92 |
| Feb-14 | 10.21 | 13.02 | 20.11 | 12.3 |
| Mar-14 | 12.36 | 15.01 | 18.72 | 14.47 |
| Apr-14 | 11.09 | 14.07 | 18.95 | 13.93 |
| May-14 | 12.01 | 13.42 | 17.22 | 16.56 |
| Jun-14 | 10.38 | 12.29 | 20.18 | 12.04 |
| Jul-14 | 14.41 | 15.88 | 13.08 | 10.74 |

| | Twenty-One | Craps | Roulette | Baccarat |
|--------|------------|-------|----------|----------|
| Aug-14 | 13.84 | 14.60 | 20.89 | 16.00 |
| Sep-14 | 11.44 | 12.57 | 17.88 | 12.63 |
| Oct-14 | 11.4 | 13.88 | 22.25 | 10.22 |
| Nov-14 | 12.3 | 11.41 | 14.72 | 12.35 |
| Dec-14 | 11.37 | 14.53 | 20.7 | 11.04 |
| Jan-15 | 10.37 | 10.46 | 19.88 | 17.35 |
| Feb-15 | 12.50 | 15.7 | 20.06 | 12.32 |
| Mar-15 | 12.31 | 14.63 | 16.7 | 8.32 |
| Apr-15 | 12.9 | 14.45 | 15.88 | 12.86 |
| May-15 | 12.52 | 15.23 | 15.64 | 11.48 |
| Jun-15 | 11.41 | 11.22 | 17.91 | 9.38 |
| Jul-15 | 11.03 | 13.40 | 17.72 | 12.75 |
| Aug-15 | 12.12 | 14.05 | 16.65 | 14.30 |
| Sep-15 | 13.3 | 16.12 | 14.34 | 13.29 |
| Oct-15 | 11.58 | 15.17 | 12.07 | 8.88 |
| Nov-15 | 13.21 | 13.75 | 14.39 | 14.68 |
| Dec-15 | 13.61 | 13.36 | 20.3 | 14.68 |
| Jan-16 | 12.75 | 15.14 | 21.35 | 16.09 |
| Feb-16 | 12.93 | 18.81 | 15.44 | 12.79 |
| Mar-16 | 12.78 | 13.45 | 16.53 | 11.23 |
| Apr-16 | 12.10 | 13.85 | 16.22 | 17.77 |
| May-16 | 13.45 | 14.23 | 16.53 | 12.85 |
| Jun-16 | 12.18 | 14.46 | 18.79 | 14.05 |
| Jul-16 | 14.69 | 14.98 | 20.01 | 16.50 |
| Aug-16 | 12.37 | 13.67 | 13.57 | 10.28 |
| Sep-16 | 15.59 | 13.38 | 15.84 | 16.49 |
| Oct-16 | 14.11 | 14.08 | 21.43 | 14.30 |
| Nov-16 | 14.92 | 14.91 | 23.54 | 13.53 |
| Dec-16 | 12.83 | 16.23 | 14.62 | 15.76 |
| Jan-17 | 15.65 | 15.55 | 21.19 | 16.88 |
| Feb-17 | 14.41 | 14.56 | 15.50 | 10.12 |
| Mar-17 | 14.41 | 14.56 | 15.50 | 10.12 |
| Apr-17 | 14.55 | 15.60 | 13.02 | 12.42 |
| May-17 | 15.71 | 14.25 | 16.50 | 13.10 |
| Jun-17 | 12.87 | 15.07 | 17.32 | 10.21 |
| Jul-17 | 14.39 | 17.26 | 18.45 | 15.35 |
| Aug-17 | 14.91 | 14.18 | 14.72 | 11.82 |
| Sep-17 | 16.65 | 16.81 | 17.64 | 11.54 |
| Oct-17 | 14.24 | 14.09 | 21.38 | 14.88 |
| Nov-17 | 13.40 | 14.44 | 22.10 | 10.03 |
| Dec-17 | 14.70 | 15.25 | 20.80 | 12.05 |
| Jan-18 | 14.73 | 16.86 | 19.40 | 15.82 |
| Feb-18 | 12.98 | 13.71 | 22.83 | 14.05 |

| | Twenty-One | Craps | Roulette | Baccarat |
|--------|------------|-------|----------|----------|
| Mar-18 | 12.19 | 13.85 | 16.13 | 14.03 |

All data taken from Gaming Revenue Reports for their respective months; accessible at http://gaming.nv.gov/gaming_revenue_rpt.htm

Preferred citation:

David G. Schwartz. *Nevada Table Games: Historical Hold Variations*. Las Vegas: Center for Gaming Research, University Libraries, University of Nevada Las Vegas, 2018.