

## NEVADA TABLE GAMES: HISTORICAL HOLD PERCENTAGE VARIATIONS

ANNUAL AND MONTHLY HOLD PERCENTAGES, 1992-2017

CENTER FOR GAMING RESEARCH, DECEMBER 2017

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 November 2017 for four table games:

#### Monthly Statewide Hold Percentages, 2004-2017

	21	Craps	Roulette	Baccarat
Average	12.06	13.41	18.76	12.22
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	1.42	1.80	3.24	2.73
Exp Low	10.64	11.61	15.51	9.50
Exp High	13.48	15.21	22.00	14.95

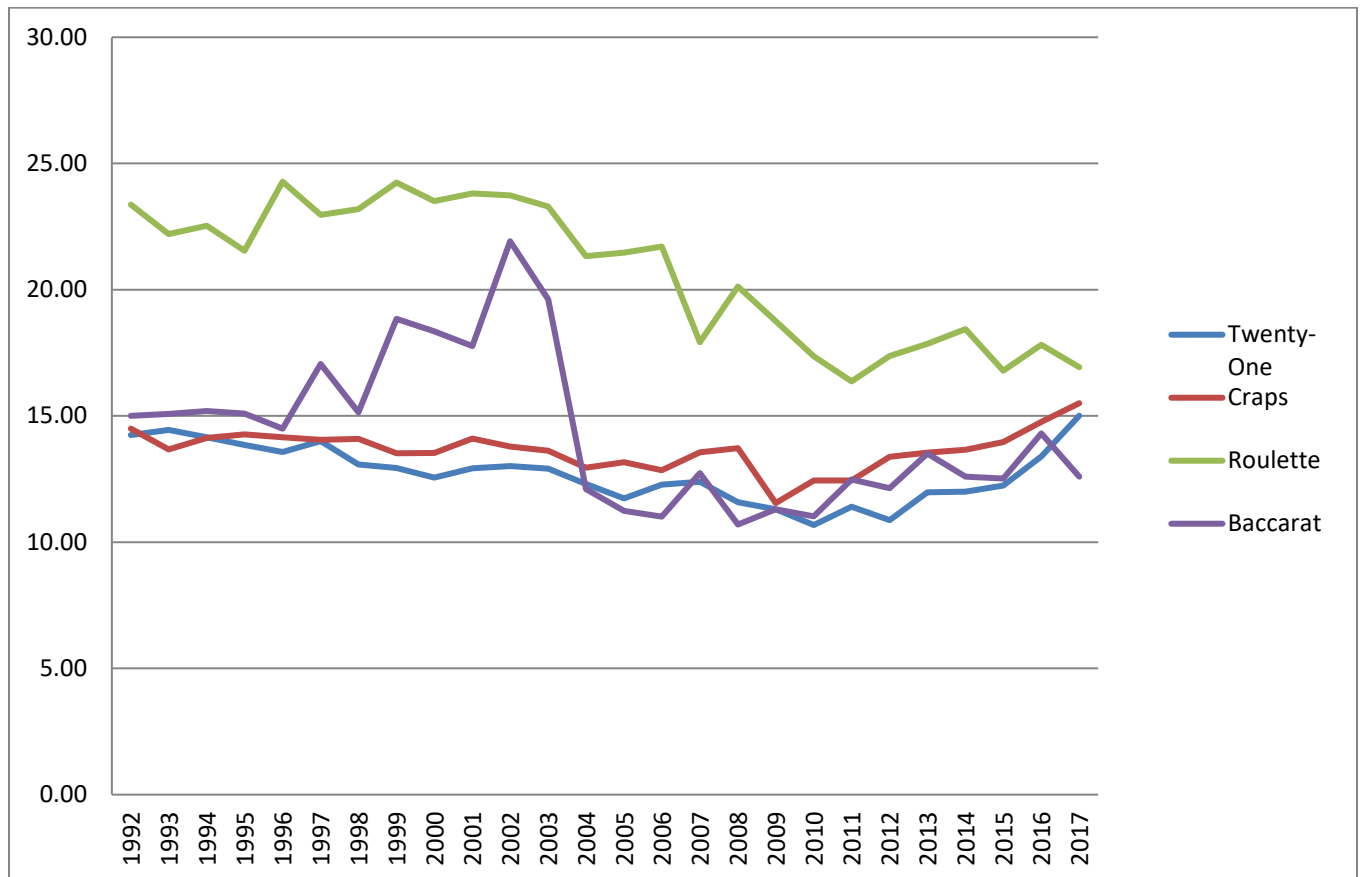
Any monthly result that deviates significantly from these averages will impact monthly gaming revenues in a way that may distort the true level of play.

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 2017, it becomes clear that Nevada table games have trended towards lower hold over the past 25 years.

Annual Statewide



*Annual statewide hold percentage data on next page*

Annual Statewide Hold Percentages, 1992-2017

	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 YTD	14.79	15.28	17.81	12.57

*Monthly statewide hold percentage data begins on next page*

Monthly Statewide Hold Percentages, 2004-2017

	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

All data taken from Gaming Revenue Reports for their respective months; accessible at [http://gaming.nv.gov/gaming\\_revenue\\_rpt.htm](http://gaming.nv.gov/gaming_revenue_rpt.htm)

Data entry by Alexis Rajnoor.

Preferred citation:

David G. Schwartz. <i>Nevada Table Games: Historical Hold Variations</i> . Las Vegas: Center for Gaming Research, University Libraries, University of Nevada Las Vegas, 2017.
---