

# Revenue Comparison Chart, Twenty-One VS Parlay 21<sup>SM</sup>



STATEWIDE  
ALL NONRESTRICTED LOCATIONS  
Win Amounts are in Thousands (Add 000)

NEVADA GAMING CONTROL BOARD GAMING REVENUE REPORT

	CURRENT MONTH SUMMARY - JULY, 2017					THREE MONTH SUMMARY - 05/01/17 TO 07/31/17					TWELVE MONTH SUMMARY - 08/01/16 TO 07/31/17				
UNIT DESCRIPTION	# OF REPORTING LOCATIONS - 327					# OF REPORTING LOCATIONS -- 331					# OF REPORTING LOCATIONS -- 335				
GAMES AND TABLES:	# OF LOC'S	# OF UNITS	WIN AMOUNT	% CHANGE	WIN PERCENT	# OF LOC'S	# OF UNITS	WIN AMOUNT	% CHANGE	WIN PERCENT	# OF LOC'S	# OF UNITS	WIN AMOUNT	% CHANGE	WIN PERCENT
TWENTY-ONE *	144	2,579	99,986	-12.26	14.39	147	2,590	296,098	-2.86	14.35	147	2,581	1,187,648	6.57	14.45

**REVENUE INCREASE WITH 50/50 EVEN MONEY PARLAY 21<sup>SM</sup> SIDE BET:\*\***

	CURRENT MONTH SUMMARY - JULY, 2017					THREE MONTH SUMMARY - 05/01/17 TO 07/31/17					TWELVE MONTH SUMMARY - 08/01/16 TO 07/31/17				
UNIT DESCRIPTION	# OF REPORTING LOCATIONS -- 327					# OF REPORTING LOCATIONS -- 331					# OF REPORTING LOCATIONS -- 335				
GAMES AND TABLES:	# OF LOC'S	# OF UNITS	WIN AMOUNT	% WIN INCREASE		# OF LOC'S	# OF UNITS	WIN AMOUNT	% WIN INCREASE		# OF LOC'S	# OF UNITS	WIN AMOUNT	% WIN INCREASE	
<u>PARLAY TWENTY-ONE (Ex. 1)</u> 50% of players place 50% of their bet 50% of the time	144	2,579	112,484	12.5%		147	2,590	333,110	12.5%		147	2,581	1,336,104	12.5%	
<u>PARLAY TWENTY-ONE (Ex. 2)</u> 75% of players place 50% of their bet 75% of the time	144	2,579	128,107	28.125%		147	2,590	379,375	28.125%		147	2,581	1,521,674	28.125%	
<u>PARLAY TWENTY-ONE (Ex. 3)</u> 75% of players place 75% of their bet 75% of the time	144	2,579	142,180	42.2%		147	2,590	421,051	42.2%		147	2,581	1,688,835	42.2%	

\* REVENUE NUMBERS FOR TWENTY-ONE ARE ACTUAL NUMBERS FROM NEVADA GAMING CONTROL BOARD GAMING REVENUE REPORT PERIOD ENDING 07/31/17

\*\* SINCE EVERY DOLLAR WAGERED ON THE 50/50 EVEN MONEY PARLAY 21<sup>SM</sup> SIDE BET IS A DOLLAR WAGERED ON TWENTY-ONE, THE INCREASE IN THE AMOUNT WAGERED WILL LEAD TO INCREASED OVERALL WIN IN TWENTY-ONE.

### STATISTICAL ANALYSIS

Since the Parlay side bet pays even money on a 50/50 event (true odds,) the side bet itself has a 0% House Edge (HE). However, all side bets that win (50%) plus the payoff must be wagered on an integrated table game. In order for a player to collect a win from the Parlay side bet, the player must win the Parlay side bet and the concurrent hand of the integrated table game (i.e. Blackjack (BJ)).

On a BJ game with a 1% HE and 1 unit bet on the Parlay Wager and 1 unit bet on the BJ hand, there are 4 possible outcomes:

Chance of Occurrence	Outcome	Net result (in units)
24.5%	Win(Side) / Win(Game)	+4
25.5%	Win(Side) / Lose(Game)	-2
24.5%	Lose(Side) / Win (Game)	0
25.5%	Lose(Side) / Lose(Game)	-2

The player has a 24.5% chance to win 3:1, and will push 24.5% of the time. (The player winning even money 49.5% of the time)

The house wins 50.5% of the time

The house retains a 1% edge over the player

The HE for the Parlay side bet is therefore 1% (Equal to the HE of the BJ game)