# Blackjack PBS Analysis & House-Edge Report Player 1

October 10, 2025

### **Executive Summary**

During a 20-round session, Player 1 wagered \$200, ending with a loss of \$60. The actual performance gave a realized house edge of 30%, far higher than the expected house edge of about 0.65% that applies to a standard play style. The deviations from the basic strategy contributed essentially nothing to the edge. The player's aggressive style means they frequently choose to hit rather than stand when the rules would recommend otherwise. The most noticeable deviations were taking a hit when the hand 8D JH faced a dealer's QH, and taking a hit on the hand QH 2D KC against an 8H. Both of these moves should have been a stand according to the basic strategy, and correcting them would remove the small negative impact already observed. No further explanation of strategy is given here.

#### Overview

Table 1: Session Summary

Rounds	Total Wager	Total Result	Realized Edge	Expected (PBS)	Expected (Actual)
20	\$200.00	-60.00	30.00%	0.65%	0.65%

Table 2: PBS Compliance / Style

Decisions	Total Deviations	Conservative Deviations	Aggressive Deviations	Style
29	9	1	8	Aggressive

## Deviations from Perfect Basic Strategy

Table 3: Player 1 Deviations

Time	Cards	Up	Action	PBS	Penalty	Explanation
04:37:31 UTC	8D JH	QH	hit	stand		Hard 18 vs dealer QH. Player
						hit (initial). PBS recom-
						mends stand.
$04:40:10 \ UTC$	QH 2D KC	8H	hit	stand		Hard 22 vs dealer 8H. Player
						hit (final). PBS recommends
						stand.
04:40:10 UTC	QH 2D KC	8H	hit	stand		Hard 22 vs dealer 8H. Player
						hit (final). PBS recommends
						stand.
04:40:10 UTC	5D AD	AH	stand	hit		Soft 16 vs dealer AH. Player
						stand (initial). PBS recom-
						mends hit.
04:40:10 UTC	5D AD	AH	stand	hit		Soft 16 vs dealer AH. Player
						stand (initial). PBS recom-
						mends hit.
04:41:17 UTC	8S 6D AC 2S 7S	10D	hit	stand		Hard 24 vs dealer 10D. Player
						hit (final). PBS recommends
						stand.
04:43:14 UTC	10D 2S	3D	double	hit		Hard 12 vs dealer 3D. Player
						double (initial). PBS recom-
0.4.45.00.475.00	0.0.44		, , ,			mends hit.
04:47:08 UTC	QC JH	3C	double	stand		Pair of Ts vs dealer 3C. Player
						double (initial). PBS recom-
0.4.40.07.17.77.0	ab all ac *II					mends stand.
04:49:05 UTC	2D 6H 9S 5H	KC	hit	stand		Hard 22 vs dealer KC. Player
						hit (final). PBS recommends
0.4 %0.00 1177.0	OII ac	9.0	1 **			stand.
04:50:39 UTC	9H 6S	3C	hit	stand		Hard 15 vs dealer 3C. Player
						hit (initial). PBS recom-
04 50 17 1100	711.00	00	1 11	1		mends stand.
04:52:17 UTC	7H 2C	2S	double	hit		Hard 9 vs dealer 2S. Player
						double (initial). PBS recommends hit.
						mends nit.

## Complete Betting History

Table 4: Player 1 Betting History

Time	Bet	Result	Realized Edge	Expected (PBS)	Expected (Actual)
04:37:31 UTC	\$10.00	+0.00	-0.00%	0.65%	0.65%
$04:38:58 \ UTC$	\$10.00	+10.00	-1.00%	0.65%	0.65%
04:40:10 UTC	\$10.00	-10.00	1.00%	0.65%	0.65%
04:40:10 UTC	\$10.00	-10.00	1.00%	0.65%	0.65%

Time	Bet	Result	Realized Edge	Expected (PBS)	Expected (Actual)
04:41:17 UTC	\$10.00	-10.00	1.00%	0.65%	0.65%
04:41:45 UTC	\$10.00	-20.00	2.00%	0.65%	0.65%
$04:42:35 \ UTC$	\$10.00	-10.00	1.00%	0.65%	0.65%
04:43:14 UTC	\$10.00	+20.00	-2.00%	0.65%	0.65%
04:45:54 UTC	\$10.00	+10.00	-1.00%	0.65%	0.65%
04:46:19 UTC	\$10.00	-20.00	2.00%	0.65%	0.65%
$04:47:08 \ UTC$	\$10.00	-20.00	2.00%	0.65%	0.65%
$04:47:32 \ UTC$	\$10.00	+0.00	-0.00%	0.65%	0.65%
$04:49:05 \ UTC$	\$10.00	-10.00	1.00%	0.65%	0.65%
04:49:19 UTC	\$10.00	+15.00	-1.50%	0.65%	0.65%
$04:50:39 \ UTC$	\$10.00	+10.00	-1.00%	0.65%	0.65%
$04:51:08 \ UTC$	\$10.00	-20.00	2.00%	0.65%	0.65%
$04:51:08 \ UTC$	\$10.00	+0.00	-0.00%	0.65%	0.65%
$04:52:17 \ UTC$	\$10.00	-30.00	3.00%	0.65%	0.65%
$04:53:06 \ UTC$	\$10.00	+15.00	-1.50%	0.65%	0.65%
04:53:53 UTC	\$10.00	+20.00	-2.00%	0.65%	0.65%

#### Notes

- Expected (PBS) is the table's baseline house edge under perfect basic strategy for the given rules.
- Expected (Actual) adds estimated penalties for each deviation from PBS.
- Realized edge is computed from outcomes in the CSV and can differ from expectation due to variance.
- **Penalty** refers to the amount of EV the player lost by deviating from PBS. This is equivalent to the increase in house edge.
- Penalties are approximate and expressed as percentage of the base bet per round; they are meant for directional analysis.