

Solana DEX Reliability Index

Measured transaction failure rates per DEX program, sampled from finalized blocks

Report date: 2026-08-21 Measured: 21 August 2026, 00:00 UTC Licence: MIT

Every figure in this report is counted rather than estimated. A scheduled sampler asks a Solana RPC node for finalized blocks, reads the account keys and error status of every transaction inside them, and attributes each transaction to a DEX program when that program identifier appears in its account list. A transaction counts as failed when its metadata carries an execution error.

No aggregator data is used, and no figure here is smoothed, averaged across weeks, or adjusted. The consequence is that these numbers move considerably between samples, which turns out to be the most useful thing in the report.

Headline figures

31.3% NETWORK FAILURES	11,923 TRANSACTIONS SAMPLED	51.6% PAID ZERO PRIORITY	4,404 MEDIAN TPS
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Sample: 6 finalized blocks, slots 440,570,663 to 440,572,663, a 16 minute window.

Failure rate by venue

VENUE	TRANSACTIONS	FAILED	FAILURE RATE	MEDIAN FEE	SHARE
Pump.fun curve	1,404	1,273	90.7%	5,741	11.8%
Jupiter v6	552	441	79.9%	8,000	4.6%
Orca Whirlpool	301	217	72.1%	5,881	2.5%
Raydium CLMM	255	168	65.9%	5,272	2.1%
Meteora DLMM	2,003	1,032	51.5%	7,881	16.8%
Meteora Pools	6	3	50%	6,606	0.1%
PumpSwap	2,982	1,254	42.1%	8,000	25%
Raydium AMM v4	36	6	16.7%	9,000	0.3%
Network-wide	11,923	3,733	31.3%	5,006	100%

Fees in lamports. Share does not sum to 100% because a transaction routed through several programs is counted once for each program it touches.

What the table shows

The bonding curve is a different regime. Pump.fun curve transactions failed at 90.7% in this sample against a network-wide rate of 31.3%. Curve pricing responds directly to every purchase, so competing transactions invalidate each other's expected output and are rejected on slippage. That is structural rather than incidental: it does not disappear when the network is quiet, it only becomes less extreme.

The spread between venues is wide. Pooled venues in this sample range from under twenty per cent to above seventy. Anyone treating "the Solana DEX failure rate" as a single number will be wrong about most individual venues.

Most transactions still pay nothing extra. 51.6% of sampled transactions paid no priority fee above the 5,000 lamport base fee. The distribution is a floor with a thin tail rather than a bell.

Priority fees actually paid

PERCENTILE	LAMPORTS
50th	0
75th	1,001
90th	4,390
99th	17,500

Measured as paid fee minus the 5,000 lamport base fee, over 10,722 single-signature transactions.

The gap between the ninetieth and ninety-ninth percentile is the interesting part. Almost everyone pays nothing or very little, while a small minority pays a great deal. Fee guidance that quotes one recommended level is describing a distribution that does not exist.

How conditions change the numbers

Two samples taken six days apart, under materially different network load:

DATE	NETWORK FAILURES	MEDIAN TPS	MEDIAN FEE	PRIORITY P ₉₀
2026-08-15	13.3%	2,792	5,000	1,314
2026-08-21	31.3%	4,404	5,006	4,390

The same comparison per venue:

VENUE	2026-08-15	2026-08-21	CHANGE
PumpSwap	18.4%	42.1%	+23.7 pt
Pump.fun curve	87.6%	90.7%	+3.1 pt
Meteora DLMM	17%	51.5%	+34.5 pt
Raydium CLMM	20.6%	65.9%	+45.3 pt
Jupiter v6	23.3%	79.9%	+56.6 pt
Raydium AMM v4	25%	16.7%	-8.3 pt
Orca Whirlpool	18.2%	72.1%	+53.9 pt

Read this before quoting any single figure. The network-wide rate more than doubled between these two samples while throughput rose by roughly half. Individual venue rates moved by tens of percentage points. A failure rate quoted without its measurement date, and without the network conditions around it, is close to meaningless. That is why every figure published here carries a timestamp and why the full archive is public.

Method

- **Head slot.** `getSlot` with finalized commitment.
- **Block retrieval.** `getBlock` over a slot range with `transactionDetails: accounts, rewards: false, maxSupportedTransactionVersion: 0` and `commitment: finalized`. The accounts detail level returns the account keys each transaction touched plus its error status, which is everything required at a fraction of the payload of full transaction data.
- **Attribution.** A transaction is attributed to a venue when its account keys include that venue program identifier.
- **Failure.** A non-null error in transaction metadata: the transaction was included in a block and did not execute.
- **Context.** `getRecentPerformanceSamples` for throughput and `getPriorityFeeEstimate` for the fee market.

Program identifiers

VENUE	PROGRAM ID
Pump.fun curve	6EF8rrecthR5Dkzon8Nwu78hRvfCKubJ14M5uBEwF6P

VENUE	PROGRAM ID
PumpSwap	pAMMBay6oceH9fJKBRHGP5D4bD4sWpmSwMn52FMfXEA
Raydium AMM v4	675kPX9MHTjS2zt1qfr1NYPuZLXfQM9H24wFSUt1Mp8
Raydium CLMM	CAMMCzo5YL8w4VFF8KVHrK22GGUsp5VTaW7grrKgrWqK
Raydium CPMM	CPMDWBwJDtYax9qW7AyRuVC19Cc4L4Vcy4n2BHAbHkCW
Meteora DLMM	LBUZKhRxPF3XUpBCjp4YzTKgLccjZhTSDM9YuVaPwxo
Meteora Pools	Eo7WjKq67rjJQSZxS6z3YkapzY3eMj6Xy8X5EQVn5UaB
Orca Whirlpool	whirLbMiicVdio4qvUfM5KAg6Ct8VwpYzGff3uctyCc
Jupiter v6	JUP6LkbZbjS1jKKwapdHNy74zcZ3tLUZoi5QNYVTaV4
Phoenix	PhoeNiXZ8ByJGLkxNfZRnkUfjvmuYqLR89jjFHGqdXY
Lifinity v2	2wT8Yq49kHgDzXuPxZSaeLaH1qbmGXtEyPy64bL7aD3c

Limitations

- **Small sample per run.** Each measurement covers a handful of blocks over roughly fifteen to twenty minutes. Rows with low transaction counts move a great deal between runs and should be weighted accordingly.
- **Conditions dominate.** As the comparison above shows, the same venue can differ by tens of points depending on when it was sampled.
- **Only landed transactions are visible.** Anything that expired before inclusion never reaches a block, so every figure here understates total attempt failure.
- **Multi-program routing double-counts.** A Jupiter route settling on Raydium appears under both.
- **No intent inference.** A failed transaction is counted as failed regardless of cause. Slippage rejections, insufficient funds and program errors are not separated.

Data access

All measurements, including the archive, are published as JSON and CSV under an MIT licence.

- Repository: github.com/gilbert983/Solana-dex-reliability-index
- Live feed: www.solanavolumebotpro.com/solana-volume-data/data.json
- Methodology: www.solanavolumebotpro.com/how-we-measure/

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