Initial Velocity Bucket Analysis Report

Report Summary:
- Bucket Type: Initial Velocity
- Total Buckets: 15
- Date Range: 2025-08-01 to 2025-10-15

This report contains three tables showing:
1. Median statistics for each bucket
2. 95th percentile statistics for each bucket
3. 99th percentile statistics for each bucket

Each table shows:
- Bucket range
- Total events in the bucket
- Median/95th/99th percentile values for:
* Max Brake Pedal Position (BPP)
* Total Time (seconds)
* Total Distance (meters)
* Deceleration (m/s²)

Initial Velocity - Median Statistics

bucket	total_events	median_max_bpp	median_total_time	median_total_distance	median_deceleration
10-15	1	69.6	14.58	70.95	0.27
15-20	0	nan	nan	nan	nan
20-25	2	40.4	14.02	58.51	0.48
25-30	544	29.6	13.38	34.42	0.58
30-35	554	30.8	13.55	42.77	0.67
35-40	500	32.8	13.76	51.91	0.76
40-45	352	34.4	13.68	59.97	0.86
45-50	325	36.4	14.1	71.66	0.94
50-55	167	40.0	14.16	82.48	1.03
55-60	133	41.6	14.2	94.01	1.12
60-65	72	42.0	14.4	100.75	1.22
65-70	46	45.6	14.39	104.62	1.3
70-75	20	47.0	14.64	111.39	1.36
75-80	6	47.0	13.39	122.02	1.58
80-85	1	65.2	14.96	138.51	1.49

Initial Velocity - 95th Percentile Statistics

bucket	total_events	p95_max_bpp	p95_total_time	p95_total_distance	p95_deceleration
10-15	1	69.6	14.58	70.95	0.27
15-20	0	nan	nan	nan	nan
20-25	2	41.12	14.49	62.09	0.5
25-30	544	48.74	14.84	55.13	0.98
30-35	554	49.34	14.87	64.76	0.99
35-40	500	52.42	14.88	74.44	1.09
40-45	352	53.38	14.92	85.99	1.17
45-50	325	55.92	14.92	100.48	1.19
50-55	167	57.48	14.91	101.87	1.25
55-60	133	59.52	14.88	119.53	1.37
60-65	72	60.1	14.93	127.65	1.43
65-70	46	72.9	14.89	141.2	1.5
70-75	20	65.42	14.98	136.8	1.45
75-80	6	53.3	14.54	141.77	1.69
80-85	1	65.2	14.96	138.51	1.49

Initial Velocity - 99th Percentile Statistics

bucket	total_events	p99_max_bpp	p99_total_time	p99_total_distance	p99_deceleration
10-15	1	69.6	14.58	70.95	0.27
15-20	0	nan	nan	nan	nan
20-25	2	41.18	14.53	62.41	0.5
25-30	544	61.6	14.96	70.94	1.18
30-35	554	58.59	14.96	75.9	1.17
35-40	500	58.4	14.98	88.21	1.26
40-45	352	62.39	14.98	93.64	1.38
45-50	325	67.01	14.98	106.46	1.38
50-55	167	64.01	14.95	114.16	1.46
55-60	133	62.67	14.93	133.13	1.55
60-65	72	64.72	14.98	140.13	1.75
65-70	46	84.24	14.99	153.48	1.57
70-75	20	68.76	15.0	145.03	1.46
75-80	6	54.5	14.67	146.37	1.69
80-85	1	65.2	14.96	138.51	1.49