

Guide to Tracking Competition Performance (Jumping)

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This is a detailed guide to tracking competition performances for a jumping horse over time. In the mid-2010s I performed many analyses like these for FEI jumping riders wanting to have a detailed overview of where horses were having rails on course. This data was valuable for designing training at home, communicating with members of the care team, and planning for future competitions.

Further, with the help of a dedicated team of volunteers, I performed the same analysis for 50+ FEI jumping competitions, providing us with an additional sample of ~2,500 rails. This provided a data set to compare individual horses to - i.e. was a specific horse having more rails off a certain approach, lead, jump build, etc as compared to where average FEI jumping horses had faults? Additionally, it provided data-driven guidance on the strengths of horses, indicating where riders could take a risk on course to make up time without needing to protect the horse.

*The first section of this document provides guidance on the metrics I was tracking and instructions for completing the Course Analysis Worksheet (found under **Resources**).*

The second section provides an example of the data that was provided to riders. Grey charts represent data for one horse, red graphs are for rounds jumped at 1.55m or 1.60m (for all combined FEI horses), and green represent 1.40m – 1.50m rounds (for all combined FEI horses). Thus, a rider could compare their own horse (grey data) to aggregated horses jumping up to 1.60m or 1.50m to identify strengths and weaknesses.

Course Analysis Instructions

Download the corresponding 'Course Analysis Worksheet' from the Resources page at www.timwordentraining.com

Each round gets 19 rows in the worksheet (already set up for you). This provides room for 19 jumping efforts, although most courses will end at 14 to 17 jumping efforts (or jump-offs even fewer efforts). Only fill in the columns highlighted in blue if there was a rail at the jump.

Column 1 Rider: List rider's last name.

Column 2 Horse: List horse's name.

Column 3 Date: List date of competition.

Column 4 Location: List competition location.

Column 5 Class Type: Code the class type however makes sense for you – Welcome, GP, Table A, etc.

Column 6 Height: Indicate the class height (you may wish to make notes about the purpose of the class – to win vs training vs confidence-building).

Column 7 # in Start Order: Indicate where the horse-rider pair went in the start order (you may also want to include the total number of horses in the class, any weather that may have impacted the performance, etc).

Column 8 Jump Effort: The jumping effort on course. That is, the first jumping effort, second jumping effort, third jumping effort, etc - do not change these numbers to reflect a combination (e.g. a double combination 4A and 4B would be listed as jumps 4 and 5 in this worksheet).

Column 9 Jump # on Course: This is jump # as listed on the course – included so it is easier to go back and review video.

Column 10 Jump Type: Oxer, vertical, triple bar, open water, etc.

Column 11 Specialty Fence?: List anything atypical that may be of use to you (e.g. skinny vertical, Liverpool, wall, etc).

Column 12 Colour: Colour plays a large role in how horses will perceive fences. By tracking colour, it may be possible to diagnose limitations with a specific horse and to build their confidence to 'read' jumps of certain colours.

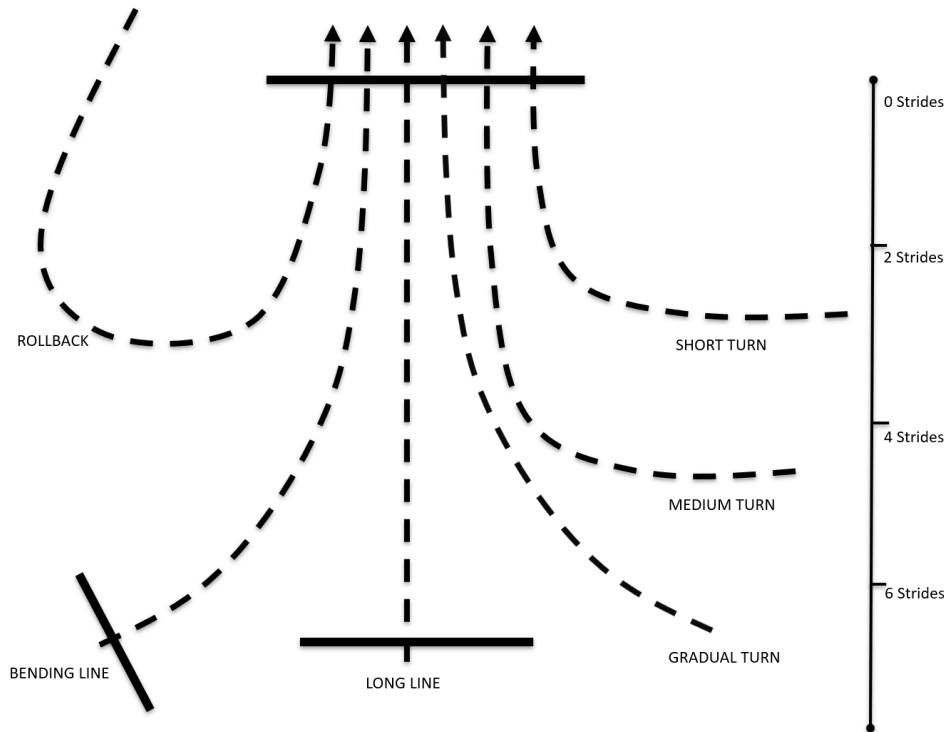
Column 13 Jump Build: Indicate the material used by the course designer to create the jump (poles, planks, boxes, etc).

Column 14 Jump Designed to Draw Eye Down?: Some course designers are quite aggressive with using materials (planks and vibrant colours) to draw a horse's eye to the bottom of the jump vs focusing on the top rail. It can be worthwhile to note this.

Column 15 Part of a Combination?: Indicate if a jump was part of a double or triple combination.

Column 16 Element of Combination?: Here you should be more granular about the exact design of the combination.

Column 17 Approach: Record the approach type here. I am including an example of how I define different approach types for consistency below.



Column 18 Strides Before Jump: Count the number of strides, beginning after the preceding jump. Of course, the first jump will not have a number of strides before it.

Column 19 Lead on Takeoff: Was the last stride before takeoff on the left or right lead?

Column 20 Lead on Landing: Did the horse land on the left or the right lead?

Column 21 Faults?: Was there a rail?

Column 22 Hit rail with front, back or belly?: Did the horse hit the rail with the front legs, hind legs, chest or belly?

Column 23 Oxeer rail?: If the jump was an oxeer, did they hit the front rail or the back rail (or both)?

Column 24 Notes: Include any additional information that may be relevant to the analysis.

Example Data

On the next page you will see an example of the types of data that can be pulled from collecting data with this worksheet. The document begins with summary statistics for a deidentified horse as well as aggregated data for other FEI horses (for comparison purposes). The details for each rail recorded for the individual horse are then reported followed by graphs comparing the horse's data (grey graphs) to aggregated data for horses jumping rounds at 1.55m or 1.60m (red graphs) horses jumping 1.40m to 1.50m (green graphs).

Horse Code: 001

Dates: January 1st 2015 – June 30th 2015

Analysis Overview

Parameter	Your Data	Average data for horses competing up to 1.55 m and / or 1.60 m (N=13)	Average data for horses competing up to 1.50 m (N=23)
Number of Competition Rounds Analyzed:	31	26.23	28.95
Number of Faults Observed on Video:	36	17.35	30.12
Number of Different Locations:	4	5.23	4.33
Number of Rounds Completed in Poor Weather (e.g. rain, mud):	5	2.45	4.65
Number of Different Riders for the Horse:	1	1	1.22
Average Number of Rails in a Round:	1.37	1.14	1.67
Number of Clear Rounds:	9	10.45	13.23
Number of Rounds with 4 Faults:	14	15.48	16.57
Number of Rounds with 8 Faults:	5	4.23	6.45
Number of Rounds Over 8 Faults:	3	2.87	3.21

Fault Analysis Log

Month	Day	Height (m)	Jump Down	Total # Jumps	Jump Type	Specialty Fence?	If part of a combination, what element	Jump Color	Jump Build	Lead?	How did fault occur?	Approach
Jan	5	1.45	8	15	Vertical	No	No	Purple/white	All rails	Left	Front legs hit front rail	Medium right turn
Jan	5	1.45	11	15	Oxer	No	A element of Triple; oxer 1 stride vertical 1 stride vertical	Yellow/red/blue	All rails	Left	Front legs hit front rail	Left Rollback
Jan	8	1.50	14	15	Oxer	Liverpool	No	Black/white	Planks	Right	Front legs hit front rail	5 strides after oxer
Jan	9	1.55	6	15	Oxer	No	B element of Double; vertical 1 stride oxer	White/blue/red	All rails	Right	Hind legs hit rail	Gradual right turn
Jan	16	1.50	11	15	Vertical	Skinny	No	Brown	Planks at bottom, single rail on top	Right	Hind legs hit rail	5 strides after oxer
Jan	16	1.50	12	15	Oxer	Liverpool	No	Grey	Shrub under rails	Left	Front legs hit front rail	5 strides after vertical
Jan	16	1.50	12	16	Oxer	No	C element of Triple; vertical 2 stride vertical 1 stride oxer	Green/white	Different colored rail at bottom of fence compared to top	Left	Hind legs hit hind rail	Part of combination
Jan	18	1.50	14	17	Vertical	No	B element of Triple; oxer 1 stride vertical 1 stride oxer	Red/white	All rails	Right	Front legs hit rail	Part of combination
Feb	26	1.60	8	15	Vertical	No	No	Purple/white	All rails	Left	Front legs hit rail	No
Feb	26	1.60	11	15	Oxer	No	A element of Triple; oxer 1	Yellow/red/blue	Planks at bottom,	Left	Front legs hit front rail	Medium left turn

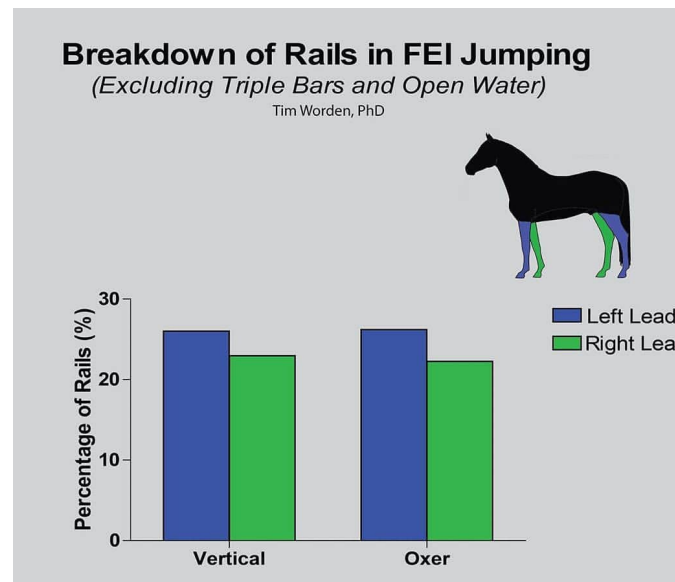
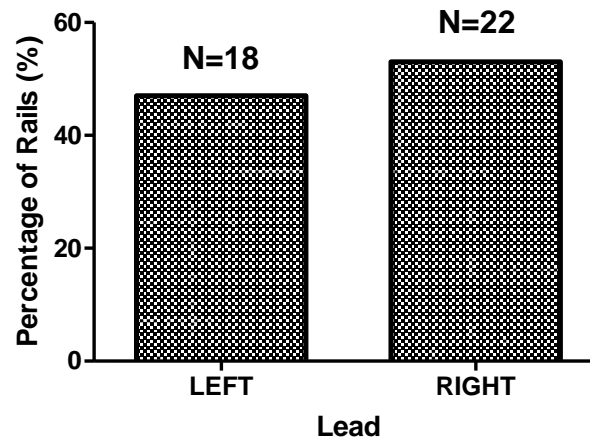
							stride vertical 1 stride vertical		single rail on top			
Feb	26	1.60	14	15	Oxer	Liverpool	No	Black/white	Shrub under rails	Left	Front legs hit front rail	Medium left turn
Feb	27	1.60	6	15	Oxer	No	B element of Double; vertical 1 stride oxer	White/blue/red	Different colored rail at bottom of fence compared to top	Left	Belly hit hind rail	Part of combination
Feb	27	1.60	8	15	Oxer	Liverpool	No	White	All rails	Right	Front legs hit front rail	Medium right turn
Mar	25	1.50	2	13	Oxer	No	No	White/green/black	Rails on top, boxes underneath	Left	Front legs hit front rail	Left Rollback
Mar	27	1.55	5	15	Oxer	No	No	White/blue/red	All rails	Right	Front legs hit front rail	5 strides after oxer
Mar	27	1.55	8	13	Vertical	No	A element of Double; vertical 1 stride oxer	Yellow/red/blue	Planks	Left	Hind legs hit rail	Gradual right turn
June	10	1.45	11	15	Vertical	Skinny	No	Brown	All rails	Left	Hind legs hit rail	5 strides after oxer
June	10	1.45	12	15	Oxer	Liverpool	No	Grey	Rails on top and bottom, plank in middle	Left	Front legs hit front rail	5 strides after vertical
June	11	1.50	12	16	Oxer	No	C element of Triple; vertical 2 stride vertical 1 stride oxer	Green/white	All rails	Left	Hind legs hit hind rail	Part of combination
June	12	1.55	14	17	Vertical	No	B element of Triple; oxer 1 stride	Red/white	Wall		Front legs hit rail	Part of combination

							vertical 1 stride oxer					
June	12	1.55	16	17	Vertical	Skinny	No	Red bike jump	Rails	Right	Front legs hit rail	Medium right turn

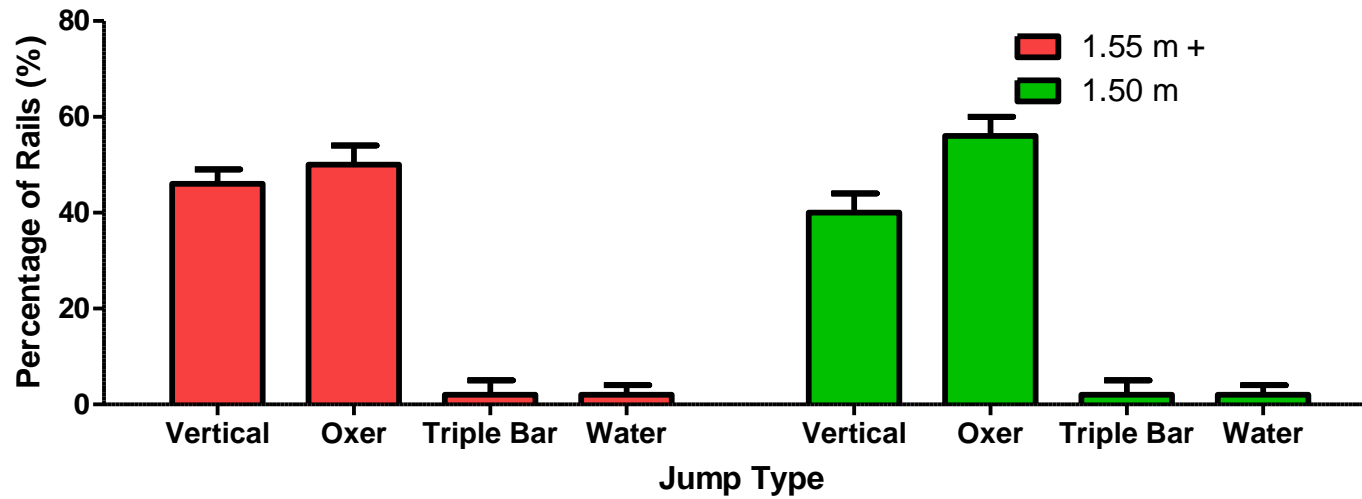
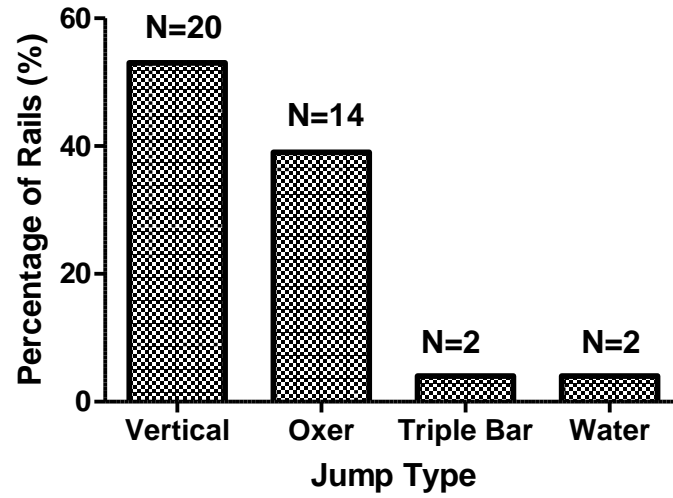
In Depth Analysis

Presented below is cumulative data to allow for further examination and understanding of how your horse's faults occurred. The graphs in grey demonstrate your data for numerous factors (e.g. percentage of rails off of the left versus right lead, percentage of rails occurring at oxers versus verticals, and so on). Above each bar on the bar graph is the actual number of rails incurred for that variable. Below your data, you will also find a colored figure displaying the same information. This figure has the average data for a number of other elite horses, and allows you to compare your results to these horses. The red bars indicate data for horses competing at or above 1.55 m, while the green bars indicate data for horses competing from 1.40 m to 1.50 m.

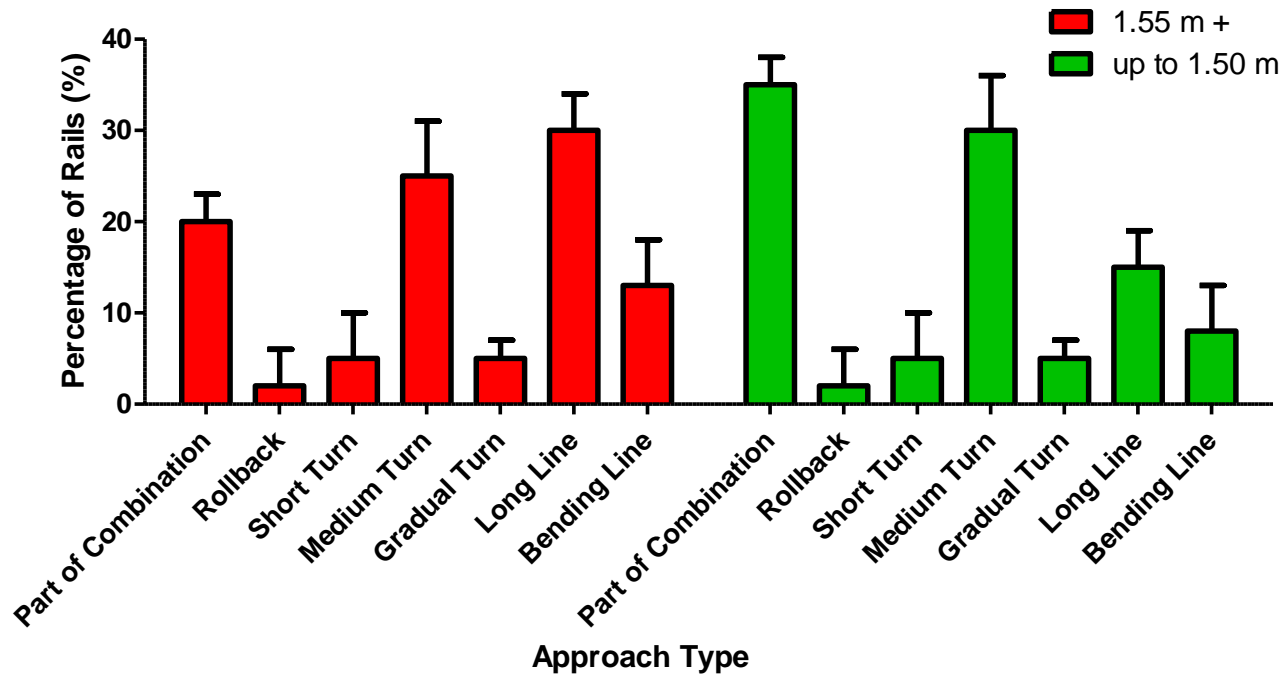
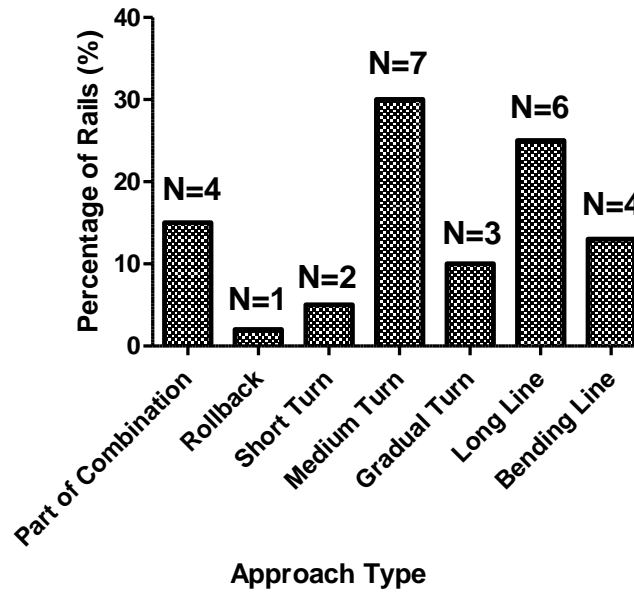
The percentage of faults incurred off the left versus right lead



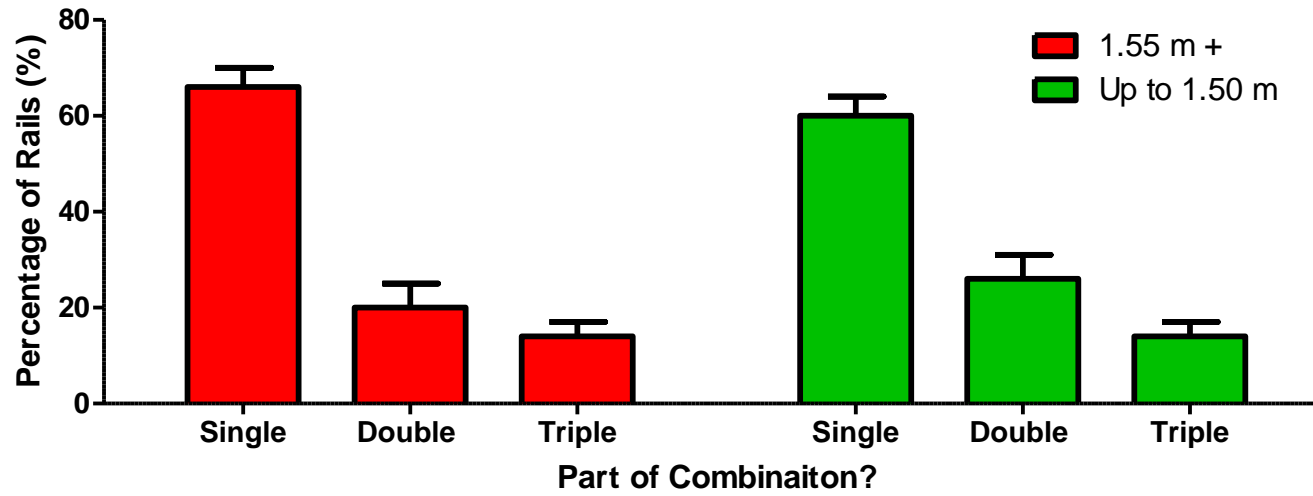
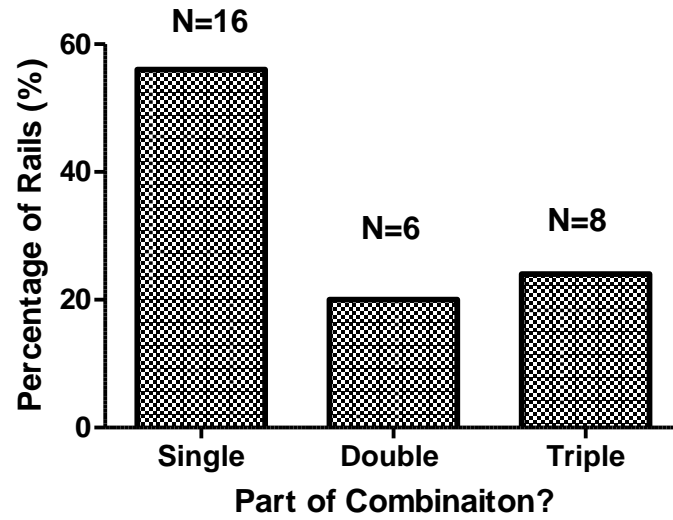
The percentage of faults incurred based on jump type



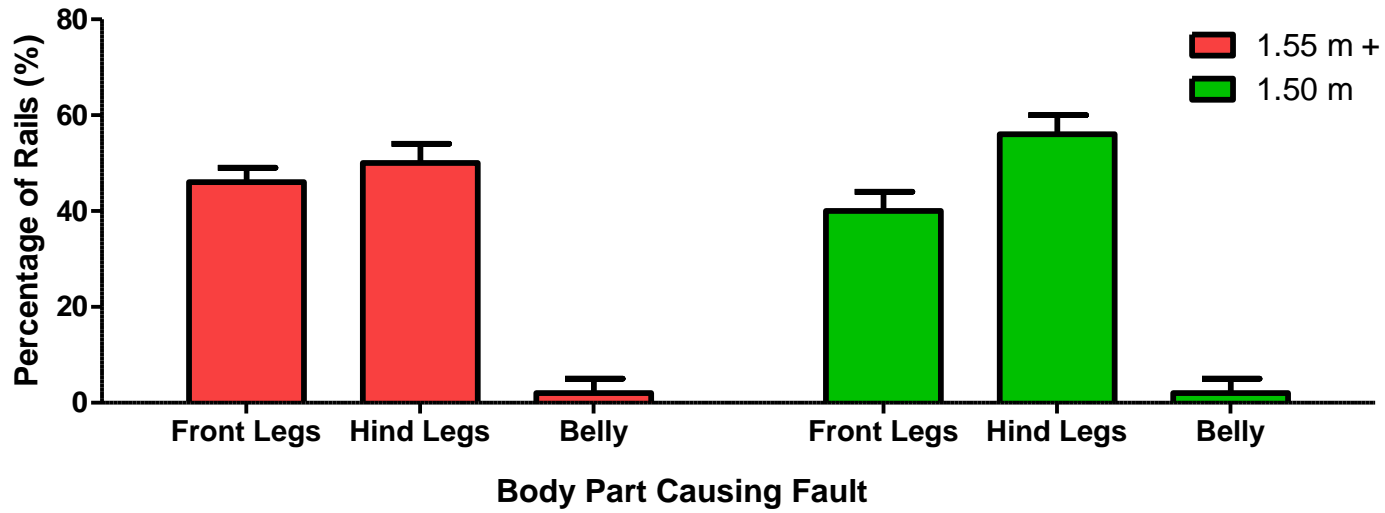
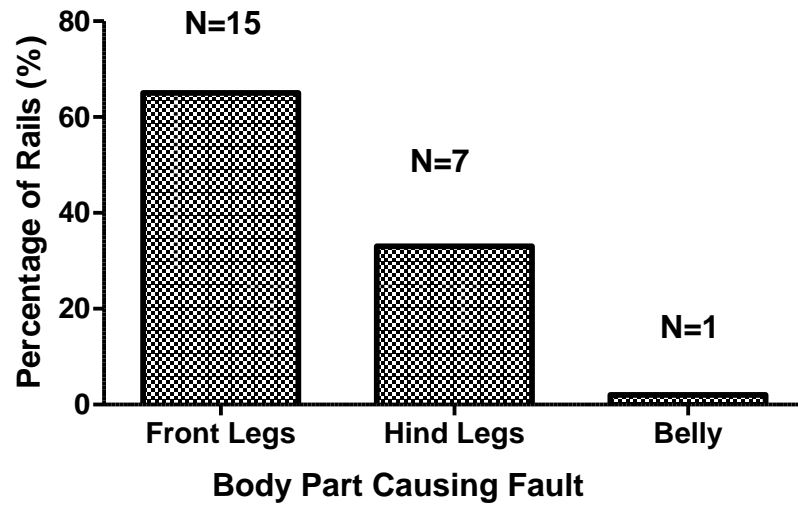
The percentage of faults incurred based on approach type



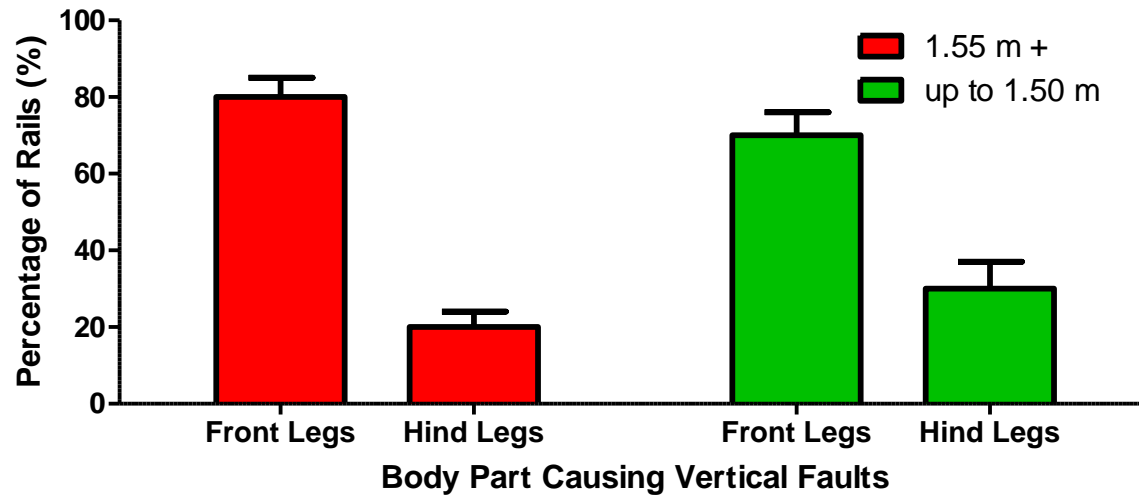
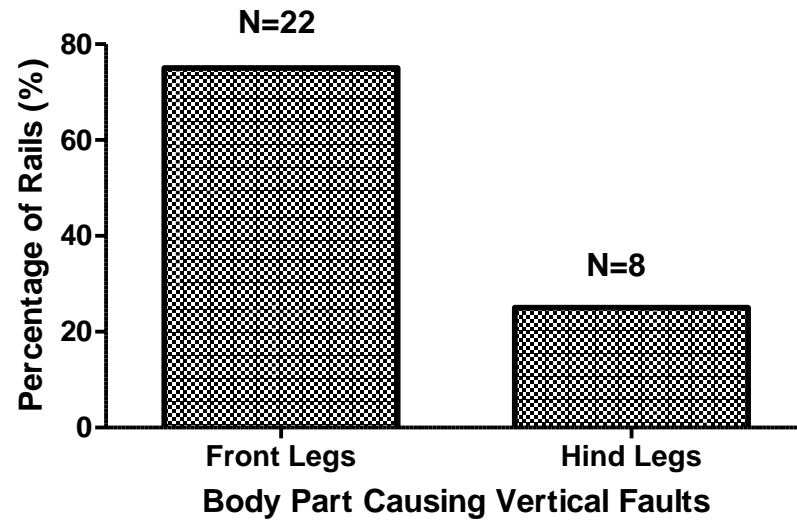
Percentage of faults incurred in combinations versus singles



Percentage of faults caused by different body parts



What percentage of faults at verticals were caused by different body parts



What percentage of faults at oxers were caused by different body parts

