

Lake Norman Keelboat Council

*Annual Report on
Competitors and Competitiveness
For 2017*

March 20, 2018

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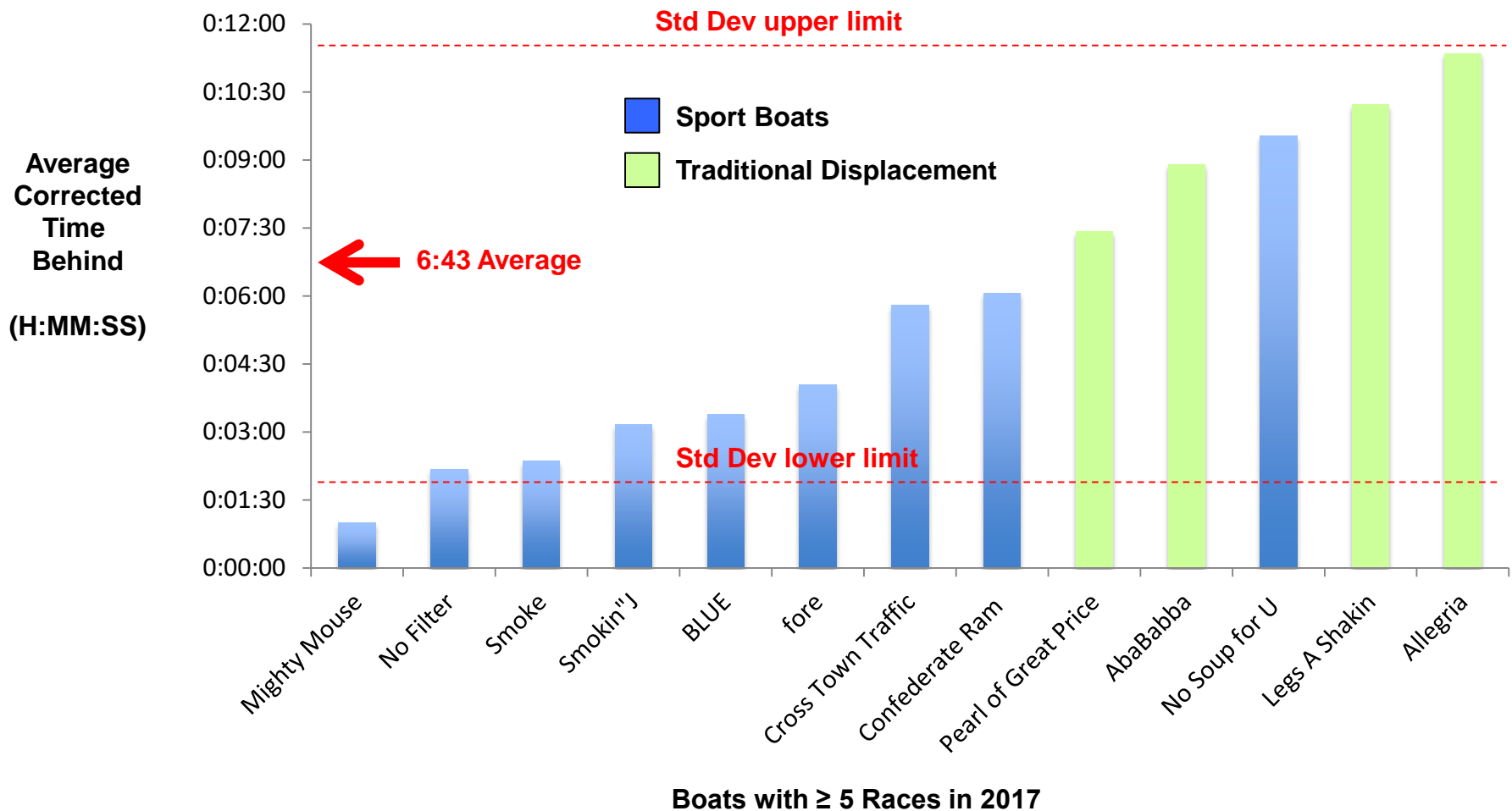
There are three metrics that the BOH plan to use to assess the competitiveness of Spinnaker and Non-Spin fleets each year.

Definitions

- Average Corrected Time Behind
 - Calculated for all boats from Corrected Time Behind in each race of the season
 - In each race, the corrected time winner in each fleet gets 00:00:00
 - All others get the difference in their corrected time vs. their fleet winner's corrected time
 - Includes all races in 2017 that are posted on the 2017 calendar of results and that fit the standard format of approximately 1 hour race time
 - E.g. The 150 Bridge Race results are not included
 - Each boat's ACTB is their average across all the races they participated in
 - Any boat that doesn't race at least 5 races in a season is dropped from the analysis
 - Their results are too subject to one-off idiosyncrasies of the races they were in
- Percent of races placed in 1st or 2nd within each fleet
 - This is the percent of times that a boat raced in which its corrected time was 1st or 2nd across all competitors in its fleet.
 - Again, any boat that doesn't race at least 5 races in a season is dropped
- Percent of races placed 1st in division
 - This is the percent of times that a boat raced in which it won 1st in its division
 - Again, any boat that doesn't race at least 5 races in a season is dropped

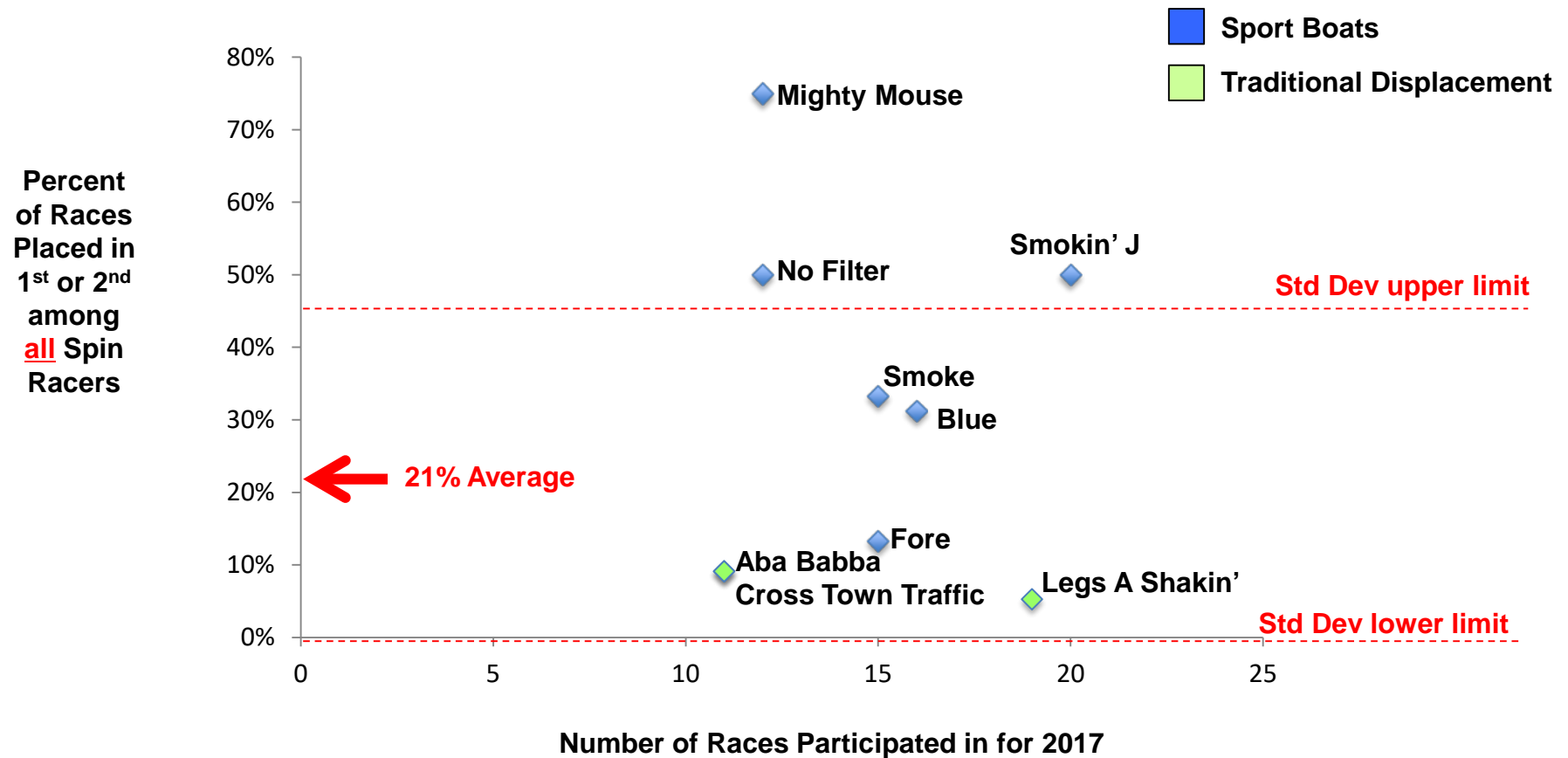
Almost all of the spinnaker fleetracers were within one standard deviation of the average. Traditional Displacement boats were clearly skewed above average and sport boats below average

Average Corrected Time Behind for Boats with ≥ 5 Races in 2017 (Behind the winner of Spin overall)



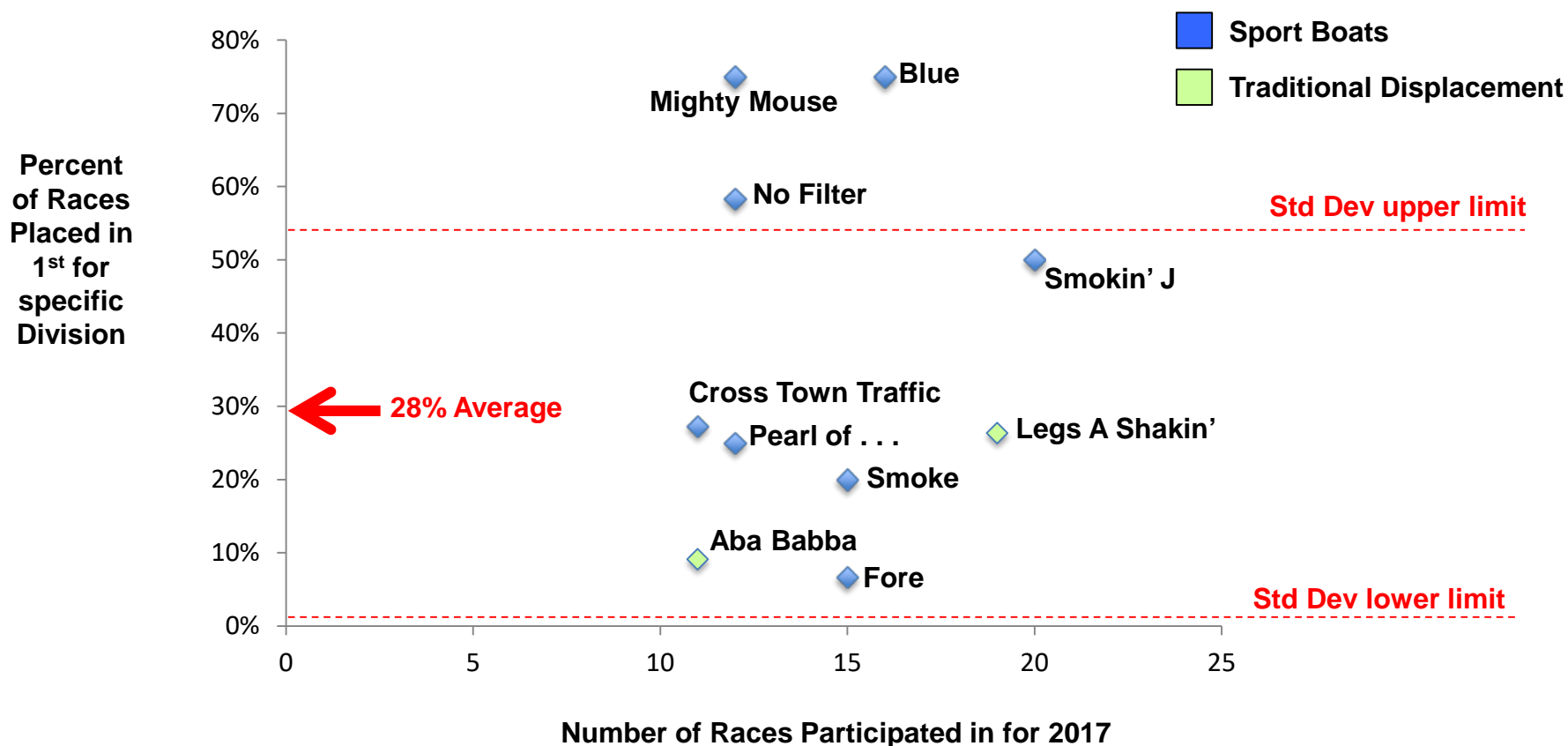
A few skippers win 1st or 2nd in the spinnaker fleet more than 40% of the times they race. Traditional Displacement competitors are among the least frequent winners for the fleet overall

Percent of 1st or 2nd Place Finishes among all Spin Racers (Boats with ≥ 5 Races)



Within specific divisions, some skippers are winning 50% or more of the races they are in. Traditional Displacement competitors are average or below in their frequency of division wins

Percent of 1st Place Finishes in Specific Spin Divisions (Boats with ≥ 5 Races)



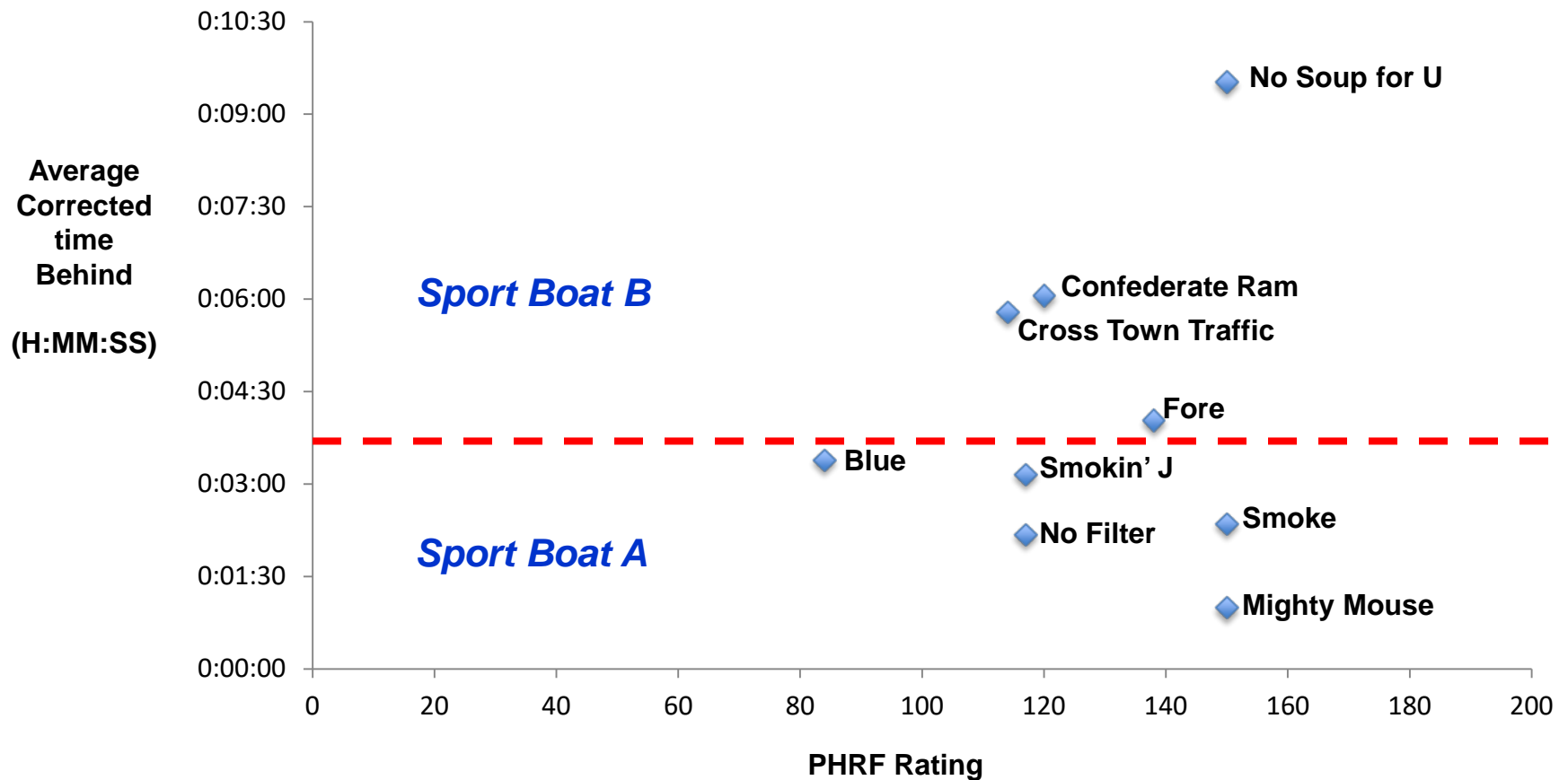
The Board of Handicappers recommends that all the clubs hosting keelboat races in 2018 create divisions for maximum competitiveness based on 2017 results

Recommended Spinnaker Fleet Divisions for 2018

- Create separate divisions for Sport Boats and Traditional Displacement Spinnaker
 - The two boat types are so different as to not be meaningful competitors
- There are likely to be few enough Traditional Displacement Spinnaker racers that they can all be put in one division for 2018 until we have more data on their relative competitiveness
- Within Sport Boats, create additional divisions based on ACTB
 - Sport Boat A for the lower 5 boats
 - Sport Boat B for the higher 4 boats
- Skippers whose boats are not in these recommendations because they did not race at least 5 races in 2017 should default into the Sport Boat B division
- These recommendations may not be feasible in races with few competitors
 - The principles can still be followed by using the following graph to group skippers into appropriately sized divisions by ACTB

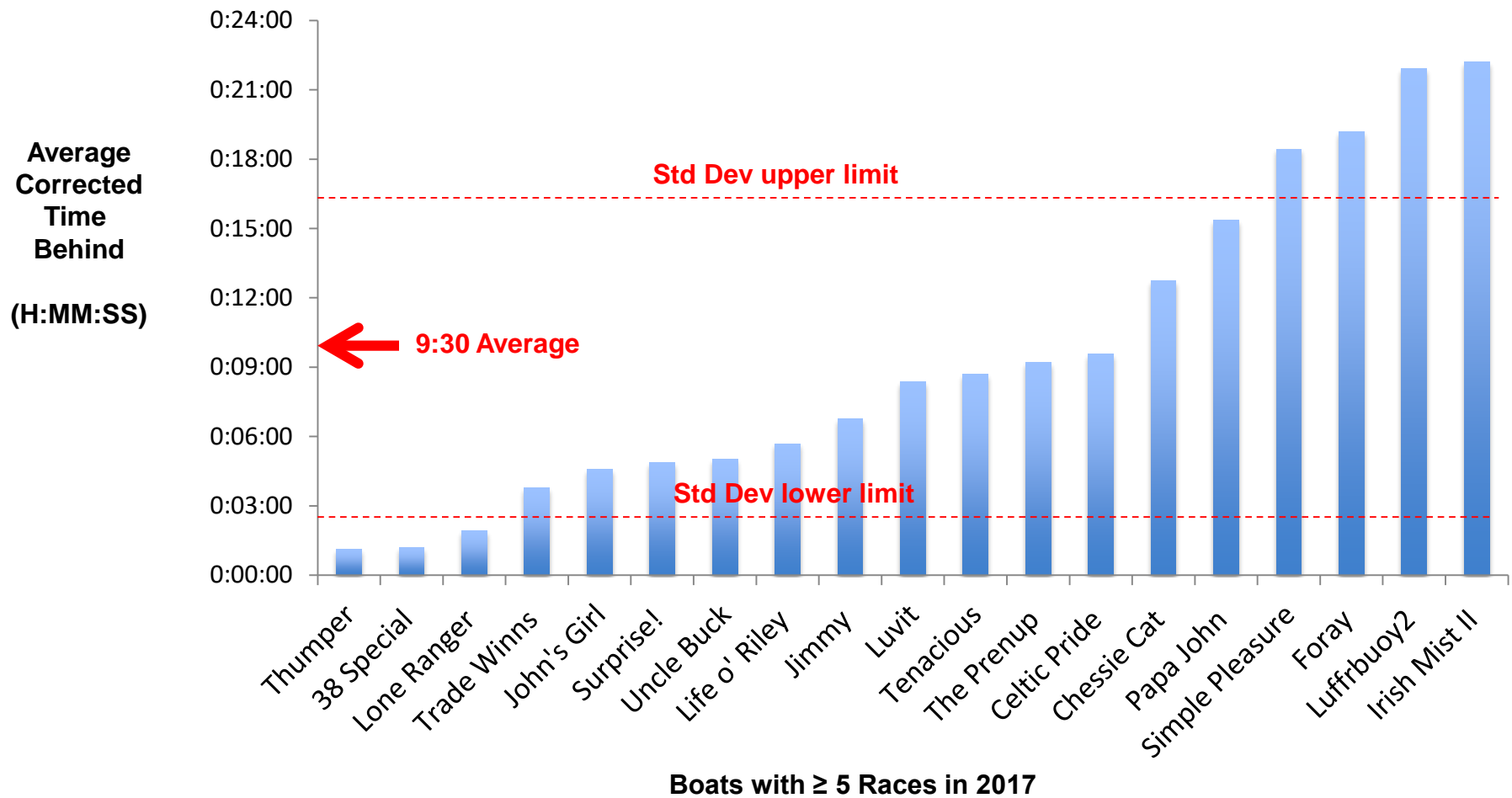
Among Sport Boats, PHRF rating is not a meaningful way to divide into divisions. Dividing based on ACTB would yield divisions with more similarly competitive racers

Creating Divisions within Sport Boats based on Competitiveness (Boats with ≥ 5 Races)(Sport Boats Only)



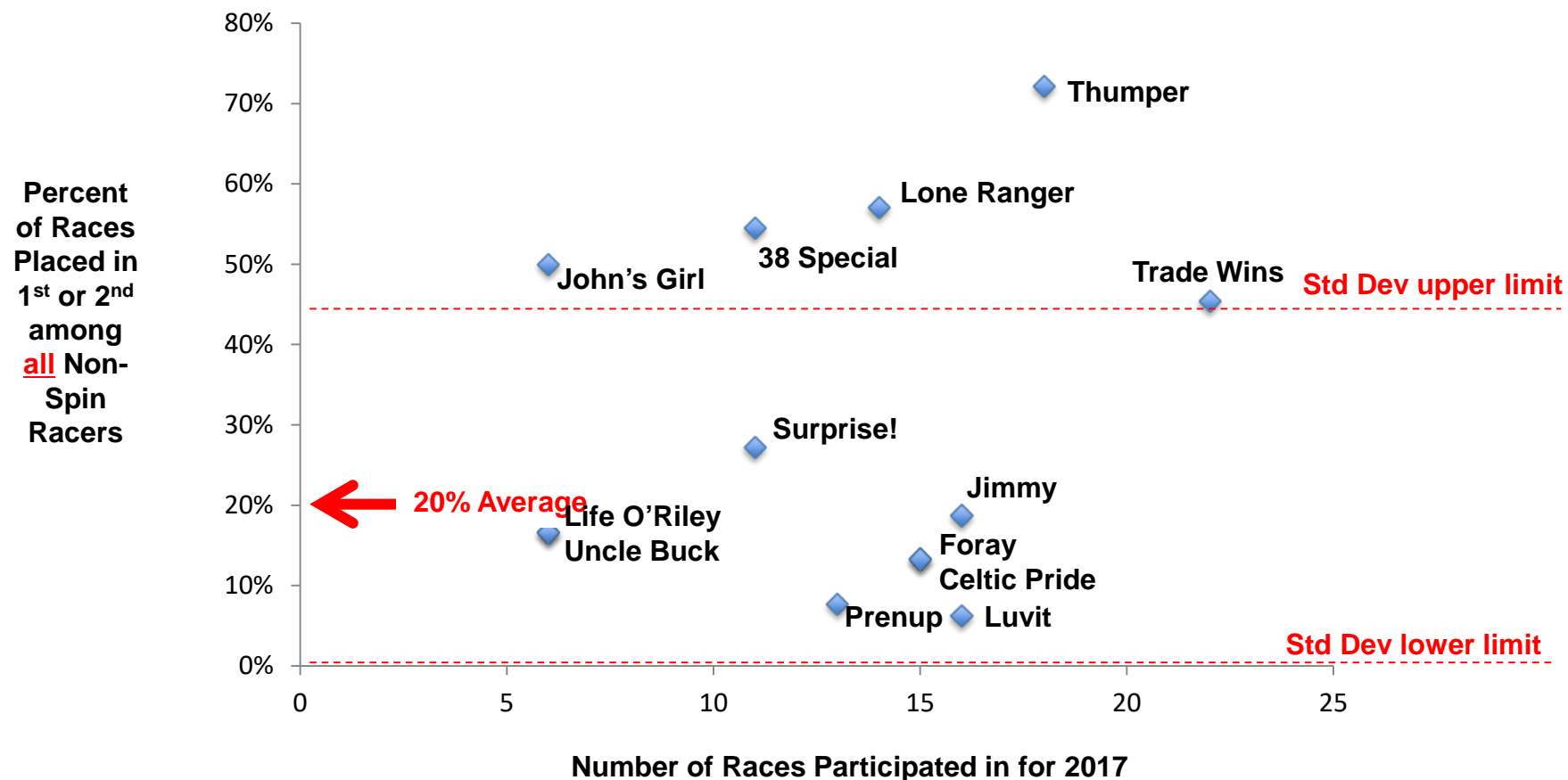
For the Non-Spin fleet, there are racers who are outside the standard deviations of ACTB performance

**Average Corrected Time Behind for Boats with ≥ 5 Races in 2017
(Behind the winner of Non-Spin overall)**



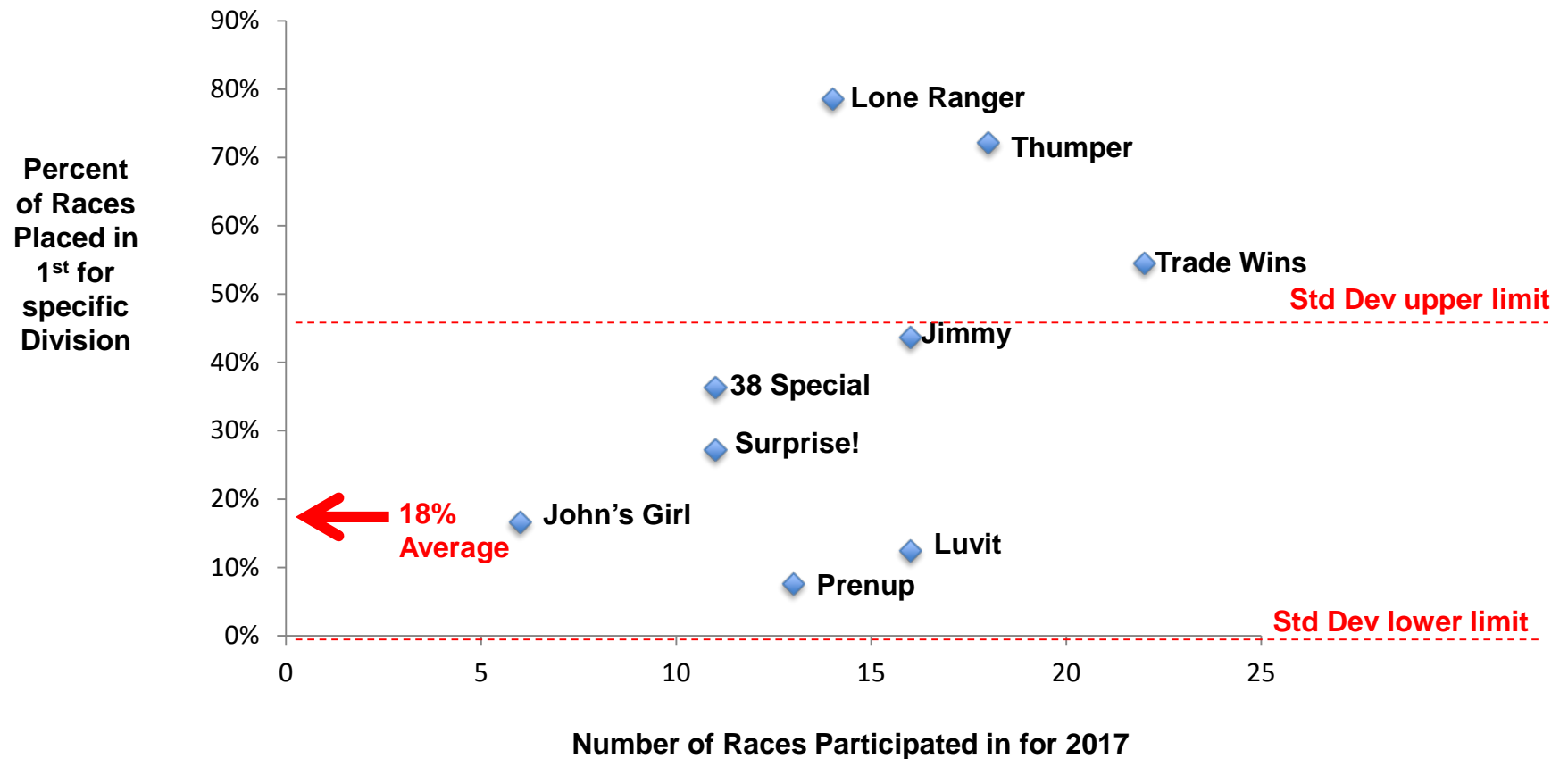
A few Competitors won first or second place across the entire Non-Spin fleet in 40% or more of their races

Percent of 1st or 2nd Place Finishes among all Non-Spin Racers (Boats with ≥ 5 Races)



Some of the same competitors won first in their Division in 40% or more of their races

Percent of 1st Place Finishes in Specific Division (Boats with ≥ 5 Races)



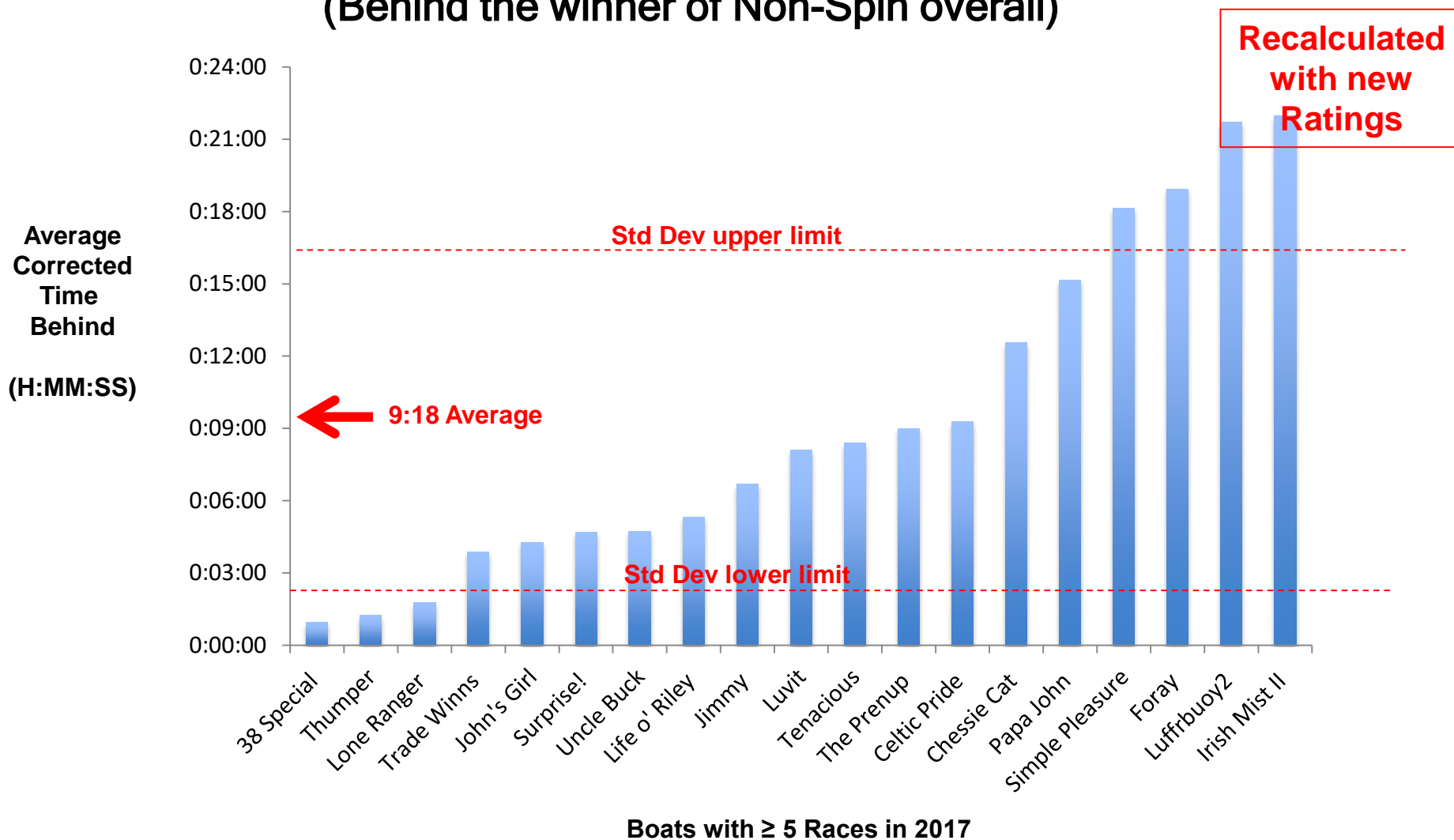
2017 results have been recalculated to assess the impact on competitiveness of the ratings changes made in February 2018

Recalculations

- In February 2018, the Board of Handicappers changed ratings on four boats that appear in this analysis
 - Ranger 28 TM (Lone Ranger) -3 sec/mile
 - Evelyn 25 (Thumper) -6 sec/mile
 - Tanzer 22 K (Trade Wins) -6 sec/mile
 - Ranger 22 (Jimmy) -3 sec/mile
- The following pages reflect 2017 results recalculated with new ratings on the four boats rerated in February 2018

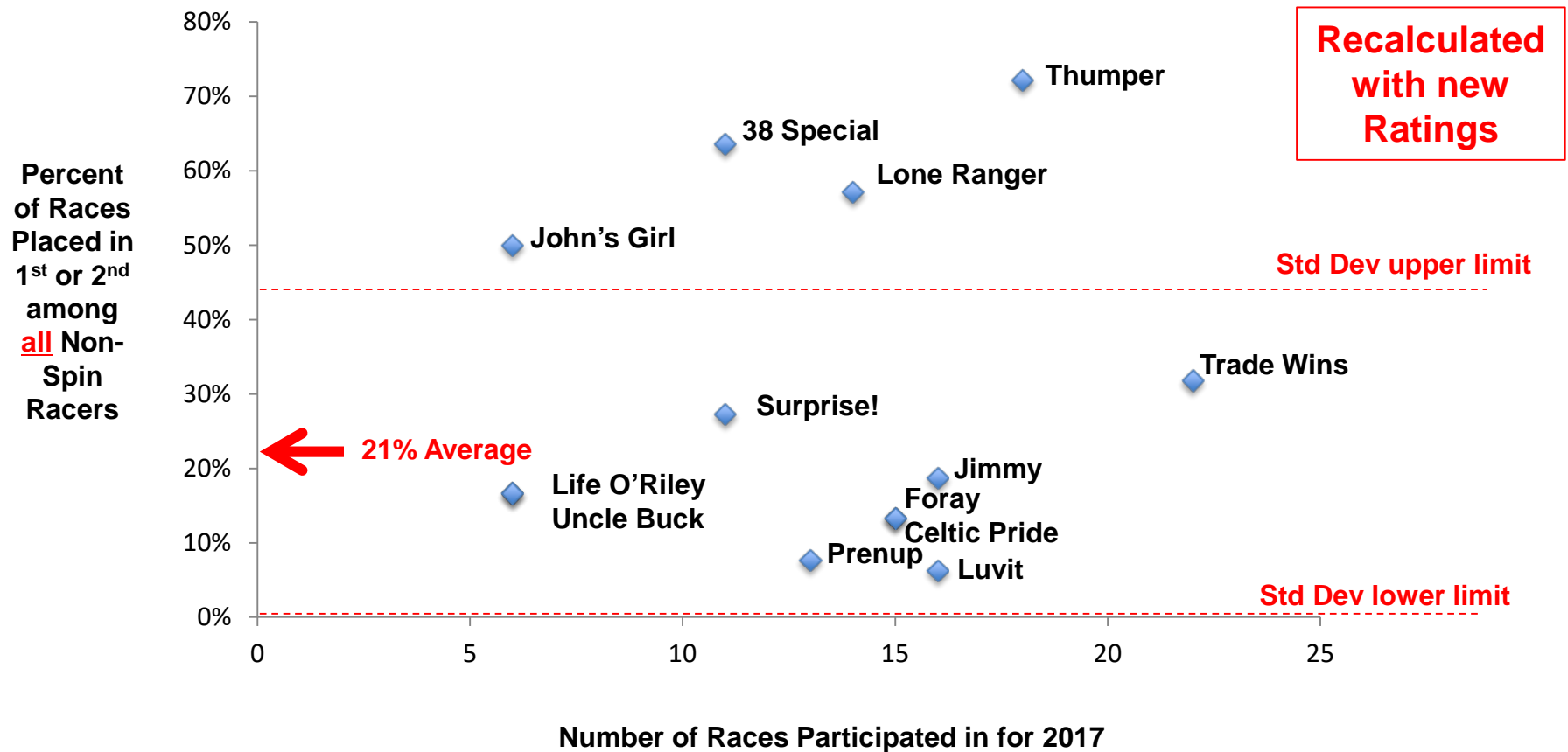
Recalculated with new Ratings, all are in almost identical positions. 38 Special switched with Thumper for lowest ACTB

Average Corrected Time Behind for Boats with ≥ 5 Races in 2017 (Behind the winner of Non-Spin overall)



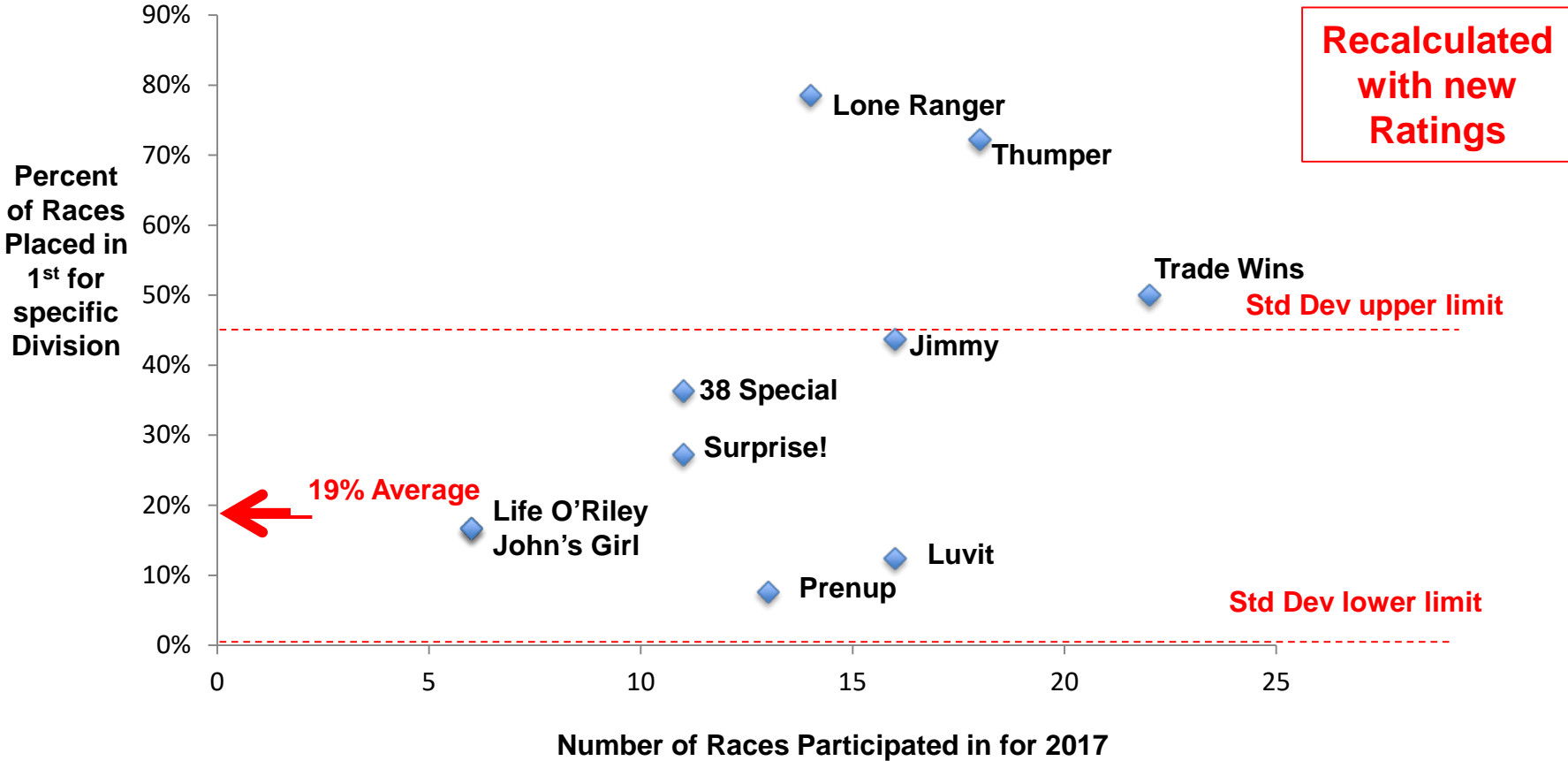
Recalculated with new Ratings, Lone Ranger and Thumper are in identical positions. 38 Special has more wins and Trade Wins fewer

Percent of 1st or 2nd Place Finishes among all Non-Spin Racers (Boats with ≥ 5 Races)



Recalculated with new Ratings, only Trade Wins loses one of its division wins to Life O'Riley

Percent of 1st Place Finishes in Specific Division (Boats with ≥ 5 Races)



The Board of Handicappers recommends that all the clubs hosting keelboat races in 2018 create divisions for maximum competitiveness based on 2017 results

Recommended Divisions for 2018

- Create divisions that reflect skipper competitiveness using Average Corrected Time Behind
 - Create a “Division 1” that includes the most competitive skippers
 - Create a “Cruiser Division” that includes the least competitive skippers
 - Create a “Main Division” that includes all the skippers in between
- Within “Division 1” (the most competitive skippers) separate further by PHRF
 - “Division 1A” for the most competitive skippers in boats with ≤ 200 rating
 - “Division 1B” for the most competitive skippers in boats with > 200 rating
 - Among the most competitive skippers this results in even better grouped racers of similar competitiveness and PHRF rating
- Within the “Main Division”, additional sub-divisions by PHRF rating can be made if there are enough competitors
- Skippers whose boats are not in these recommendations because they did not race at least 5 races in 2017 should default into the Main Division
- These recommendations may not be feasible in races with few competitors
 - The principles can still be followed by using the following graph to group skippers into appropriately sized divisions first by ACTB and secondarily by PHRF rating if there are enough boats

Recommended Non-Spin divisions for 2018 keelboat racing group skippers first by ACTB competitiveness and secondarily by PHRF rating if there are enough skippers in an ACTB grouping

Creating Non-Spin Divisions based on Competitiveness (Boats with ≥ 5 Races)

