

Using Statistics for Club Success



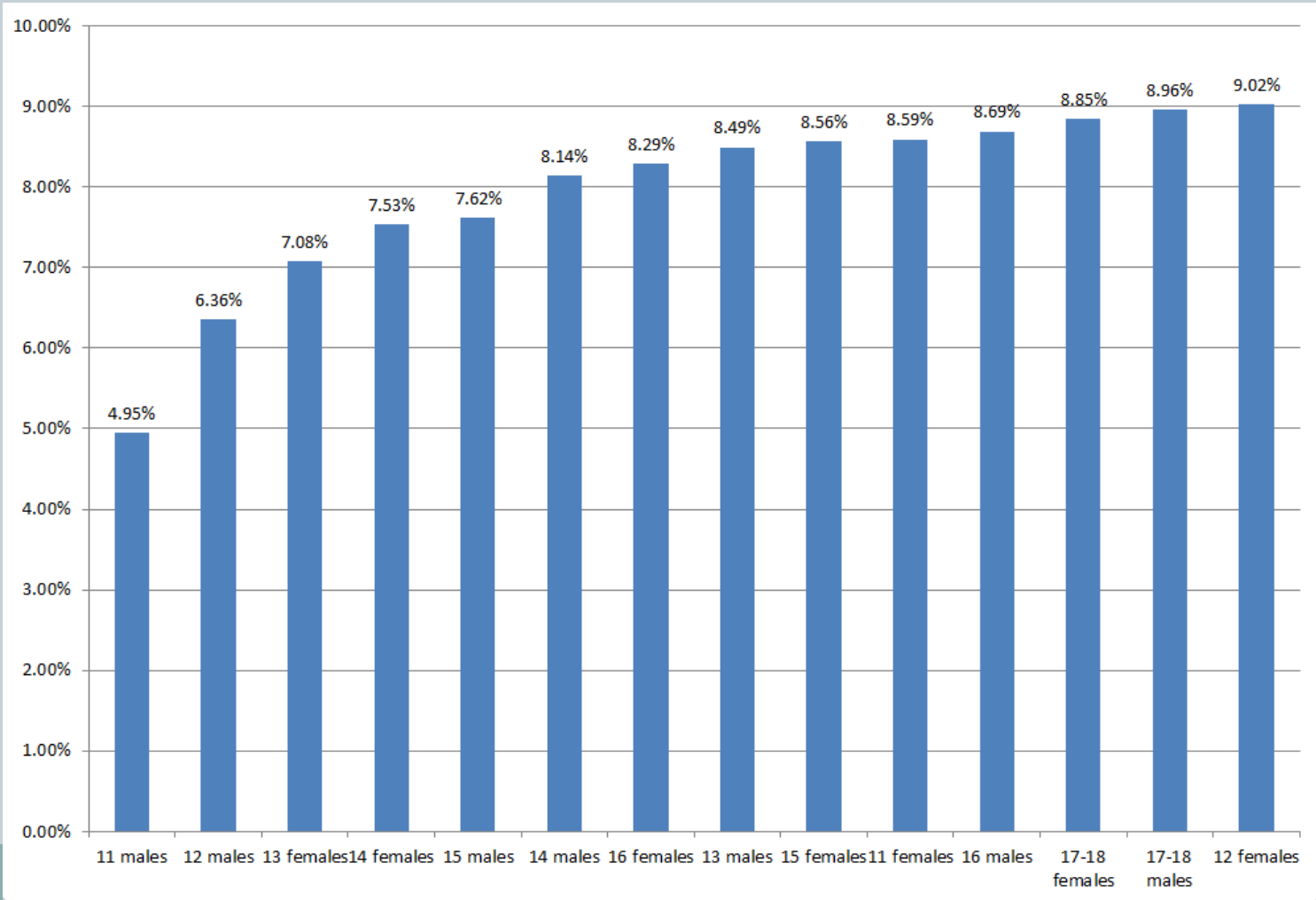
NATE KNOPF
ASSISTANT COACH
LAKESIDE SWIM TEAM



Virtual Club Breakdown 2008-2009



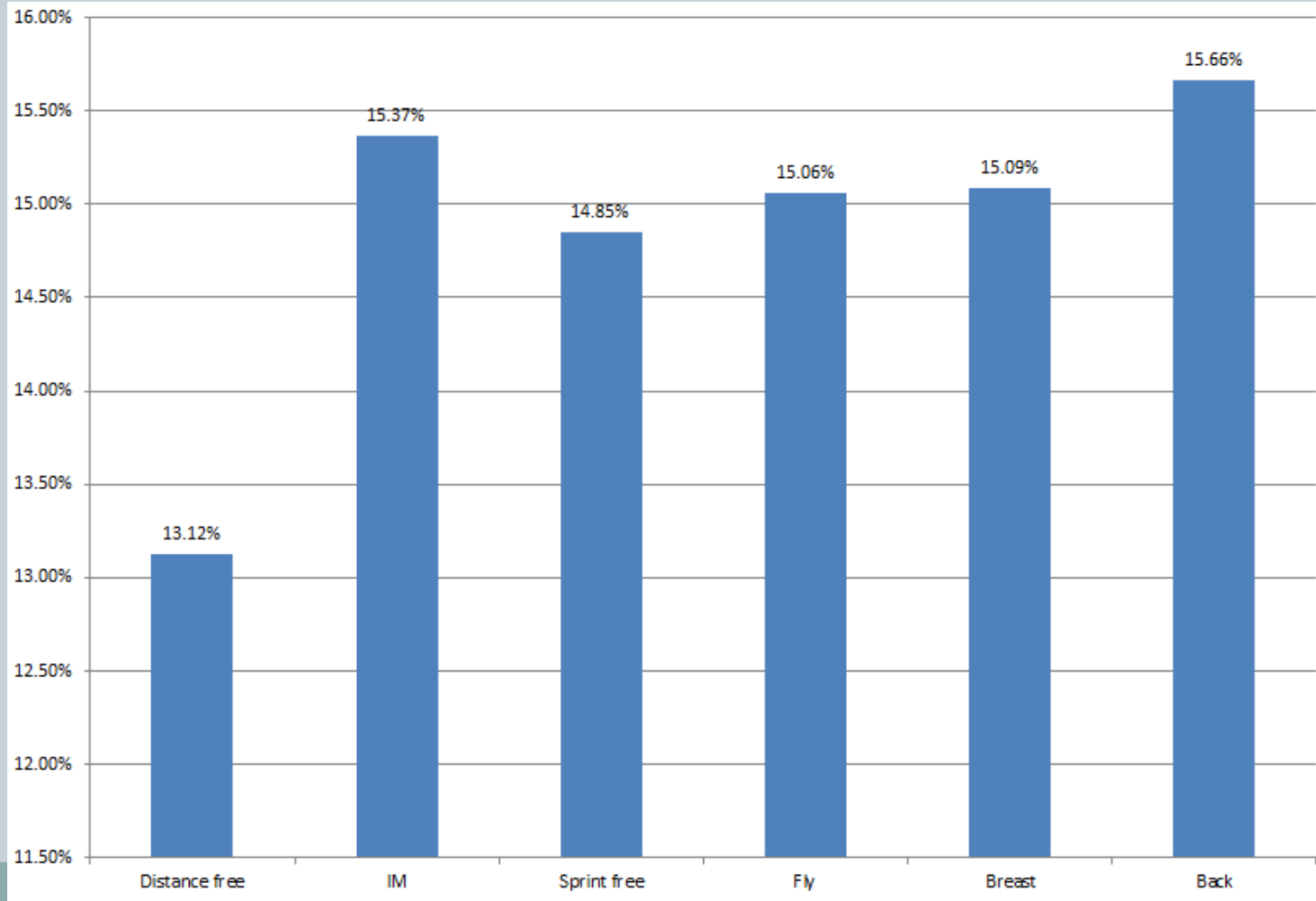
Adjusted % of Total- Age Group



Virtual Club Breakdown 2008-2009



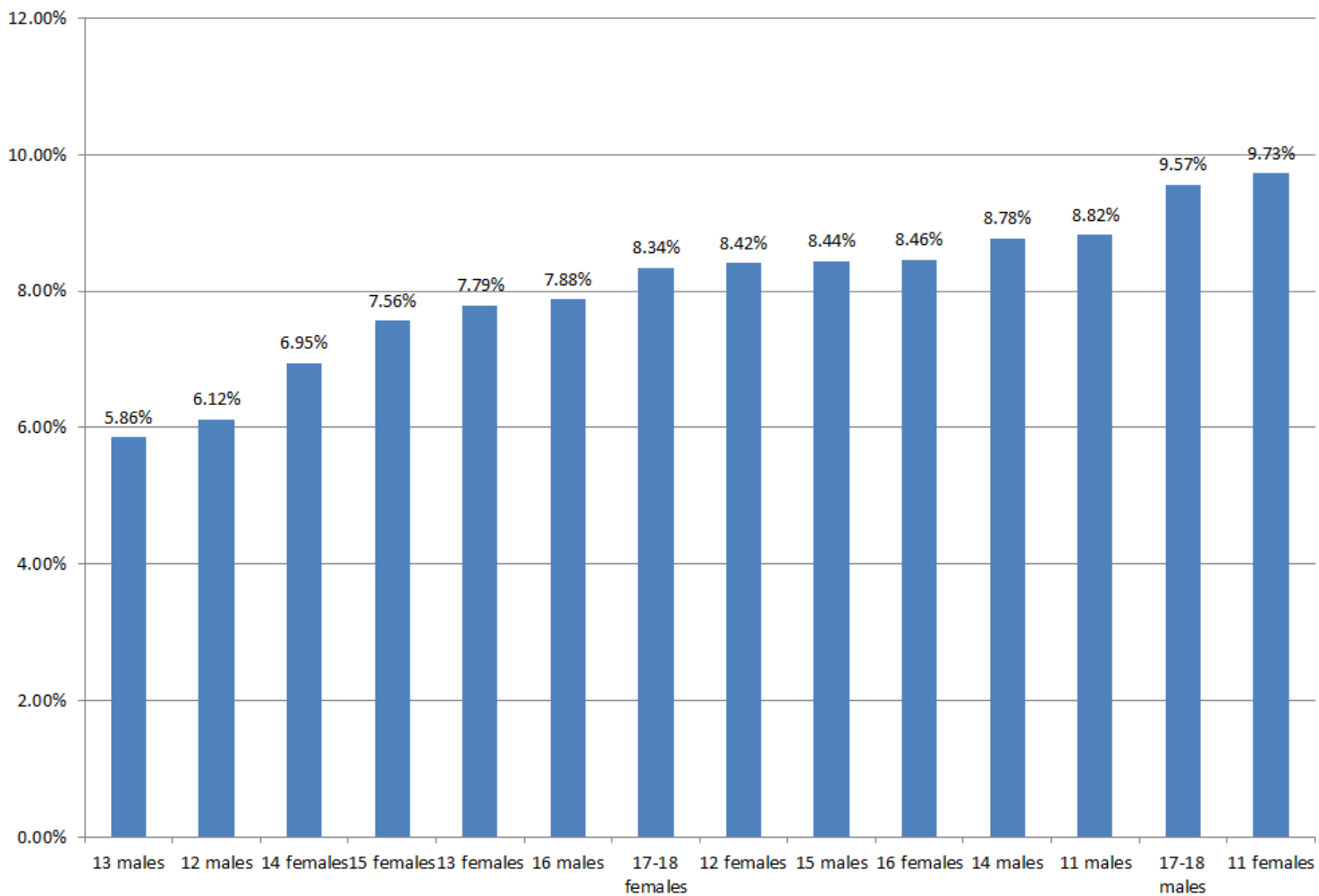
Adjusted % of Total- STK



Virtual Club Breakdown 2009-2010



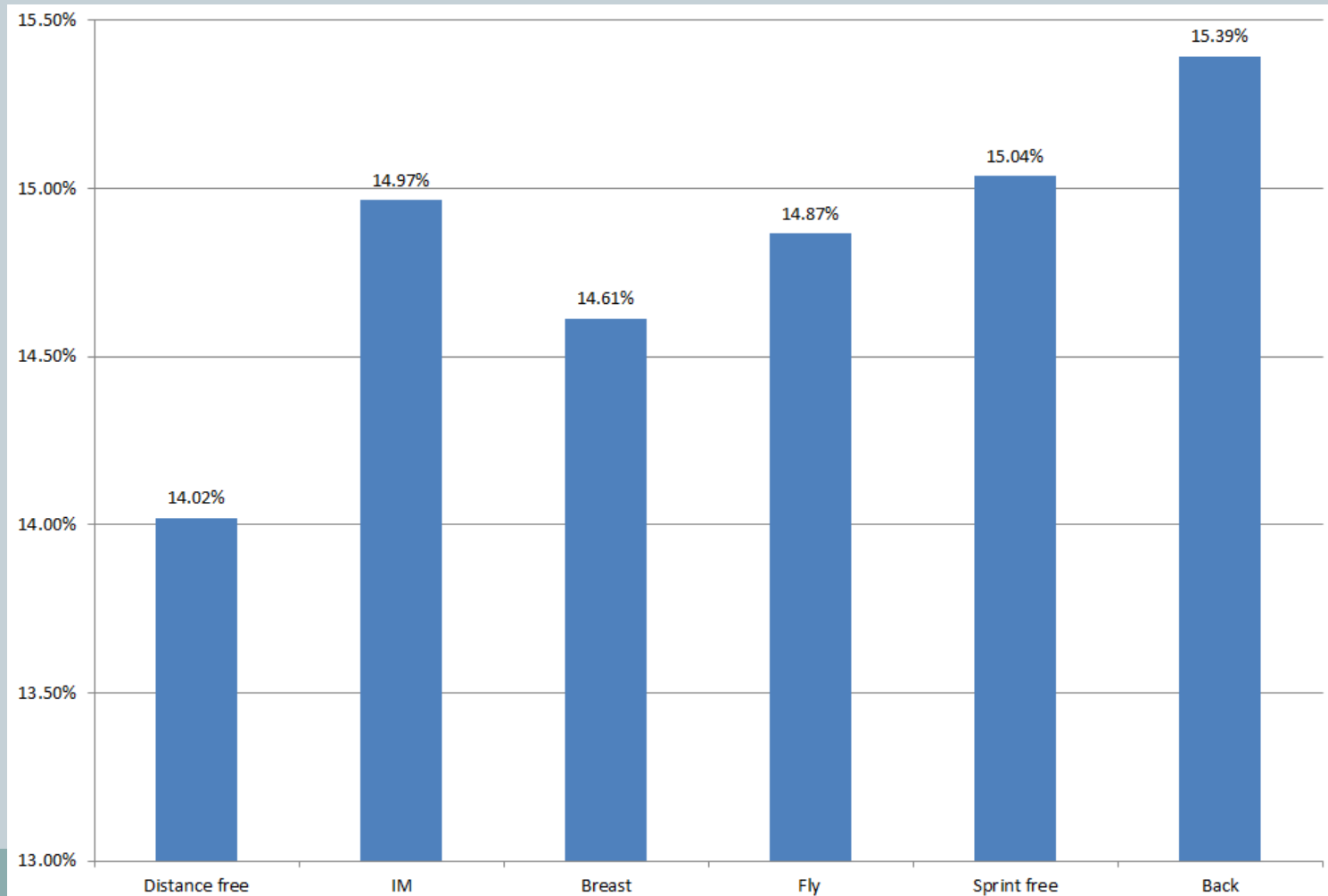
Adjusted % of Total- Age Group



Virtual Club Breakdown 2009-2010



Adjusted % of Total- STK



Notes 2008-2009



Strokes	08-09	09-10	+/- difference	% +/- difference
Distance	31,360	34,023	+2663	+7.8%
Sprint	48,171	49,525	+1354	+2.7
Fly	30,840	30,923	+83	+0.26
Back	32,086	32020	-66	-0.20
IM	31,479	31,132	-347	-1.1
Breast	30,907	30,397	-510	-1.6
Total	204,843	208,020	+3177	+1.5%

Here we see that both freestyles improved greatly over their 2008-09 scores, and with the exception of an 83 point increase in fly are solely responsible for the 1.5% increase in scoring from 08-09. It is obvious that the distance and sprinting improved and the others either stayed the same or dropped, but beyond that not much else is clear.

Notes 2008-2009



This is a comparison of the improvement of each class (08/09 compared to 09/10) divided up into male vs. female.

Age	Females	Males
11 turning 12	-52	+1601
12 turning 13	-2269	-842
13 turning 14	-1	+863
14 turning 15	+303	+882
15 turning 16	+69	+800
<u>16 turning 17/18</u>	<u>+372</u>	<u>+2097</u>
Total	-1578	+5401

It should be noted that the jump between 12-13 is fraught with error in terms of a strict comparison, due to the conversion that takes place from 12 to 13. 12 year olds have 8 events that are counted vs. 13 for any 13 and overs. Thus the measurement between 12 and 13 is more of a depth issue vs. actual improvement. Classes with a lot of top swimmers will see a negligible drop in score or see it stay even, vs. classes with very little depth will more than likely see a large drop in score. That being said analysis of the scores shows a large discrepancy between the improvement of females and males. The author cannot at this point find a particular reason for this, but clearly from 11 years old and up the males, at least in this past year, improved dramatically more than females. The next analysis is looking at the bottom 7 vs. the top 7 (14 age groups male & female).

Notes 2008-2009



Top 7

Males 4 out of the top 7
Females 3 out of the top 7

Bottom 7

Females 4 out of the top 7
Males 3 out of the top 7

This statistic is not a very telling one; rather it is used more to back up the data above, another statistic showing males out performing females.

This is a comparison between the top 3 swims (a swim being an age group/gender combo) and the bottom 3 swims in comparison to the mean of the swims. The median was 8.38.

Top 3 swims

<u>Age/gender</u>	<u>% of total score</u>	<u>+ difference</u>
11 females	9.73%	1.45%
17-18 males	9.57%	1.19%
11 males	8.82%	.42%
Total difference		+3.06

Bottom 3 swims

<u>Age/gender</u>	<u>% of total score</u>	<u>- difference</u>
13 males	5.86%	-2.52%
12 males	6.12%	-2.20%
14 females	6.95	-1.45%
Total difference		-6.15%

Difference between the two: $3.06\% - 6.15\% = -3.09\%$

Notes 2008-2009

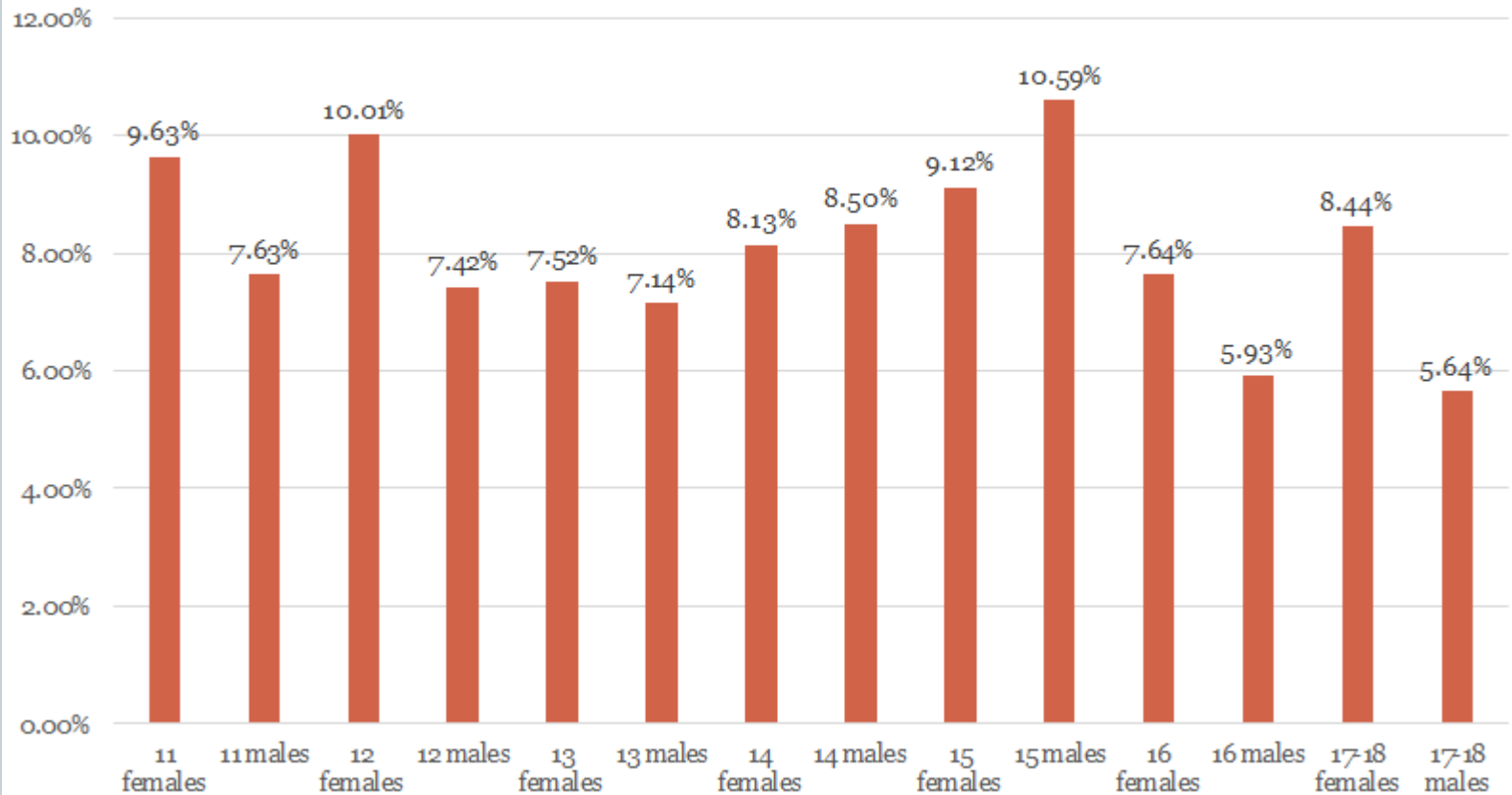


The overall theme after reviewing the numbers is twofold: 1) there was a large jump in freestyle scores this year, but very little jump with the other strokes; 2) there was a startling discrepancy with the improvement in girls scores vs. boys scores. Causes for these numbers would appear to be systematic and not flukes in statistics. Especially with the discrepancy in the girls numbers, a change would appear to be necessary.

NAC 13-14



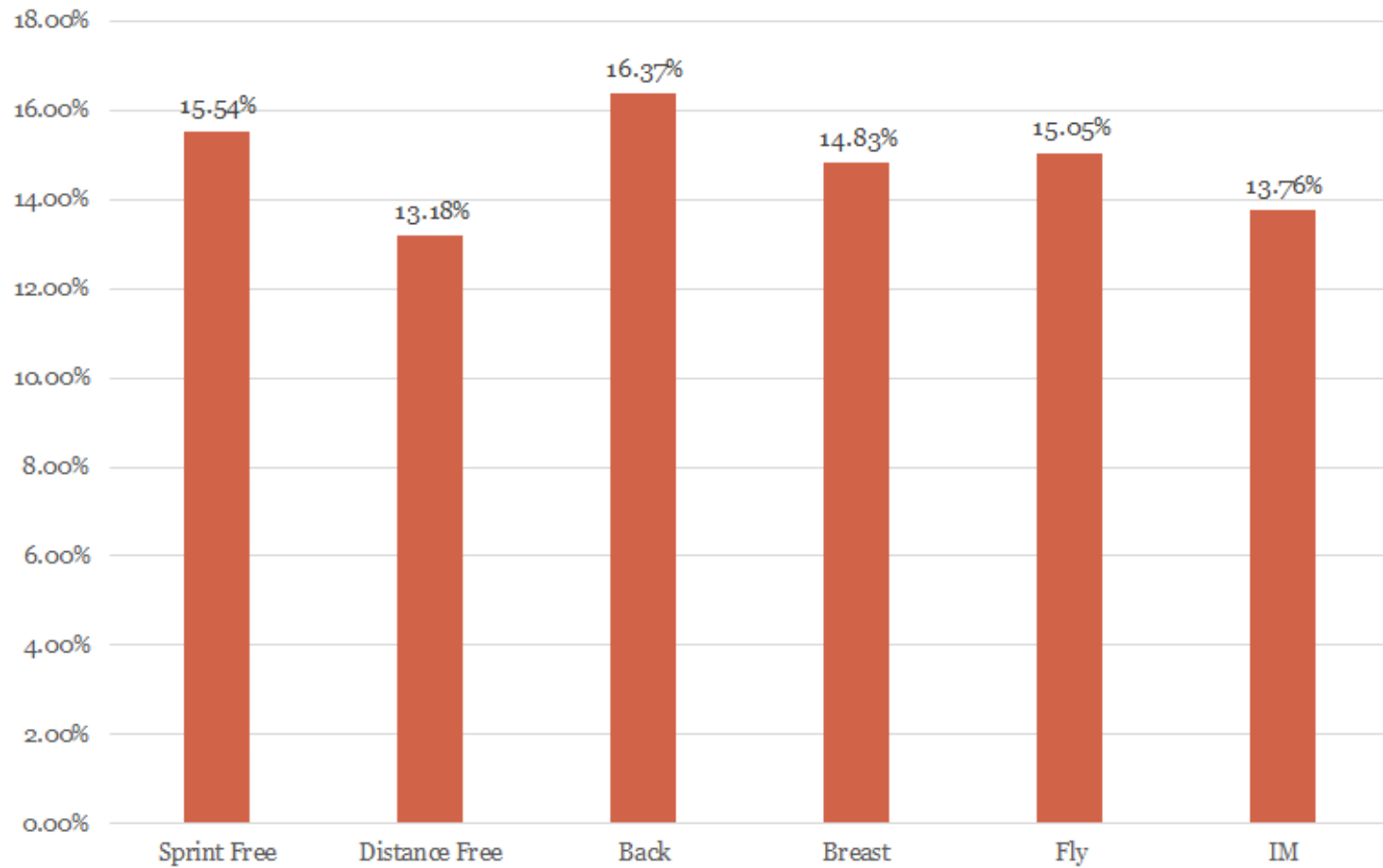
Age Groups/Gender 13-14



NAC 13-14



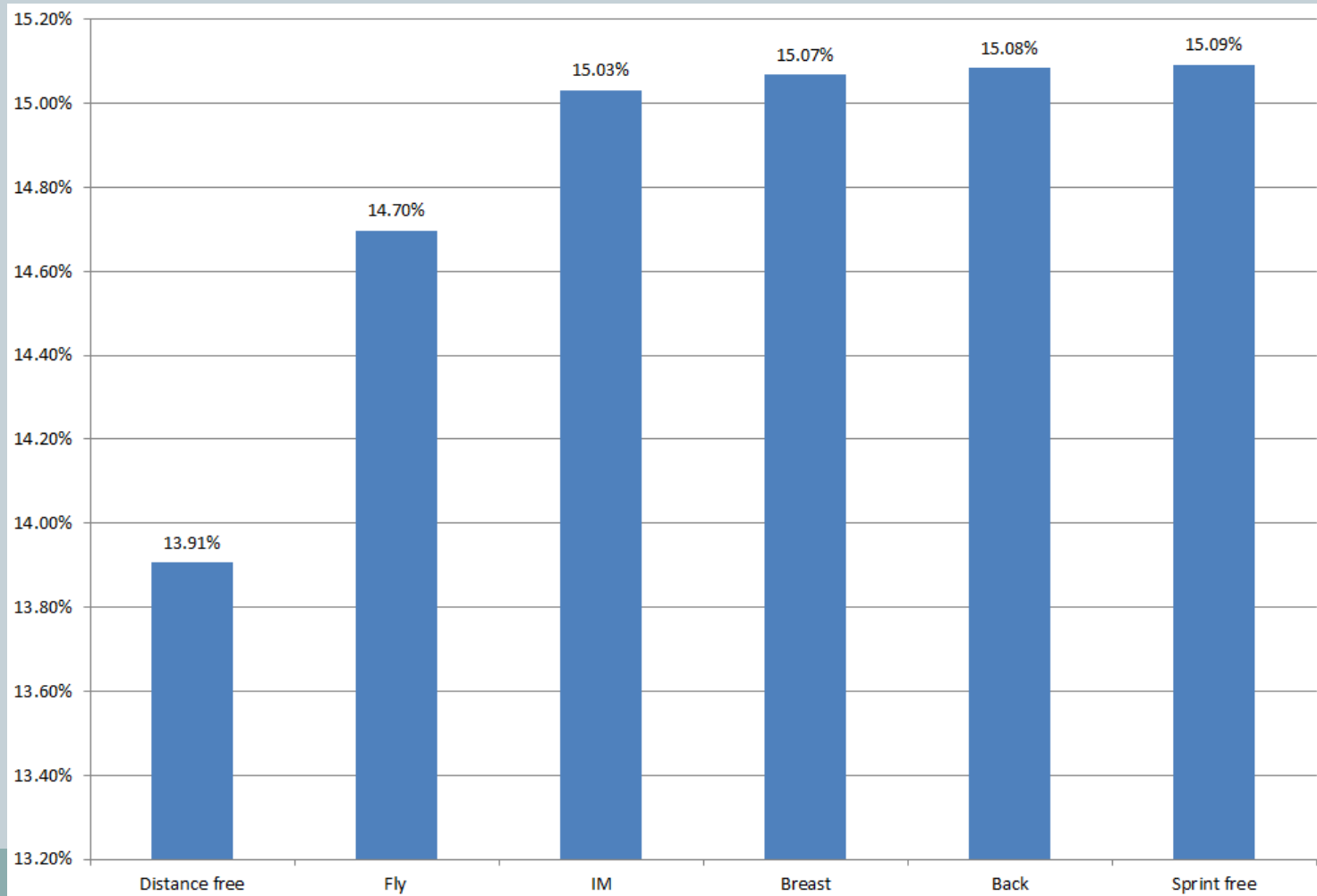
Strokes 13-14



Virtual Club Breakdown Winter 2009-2010



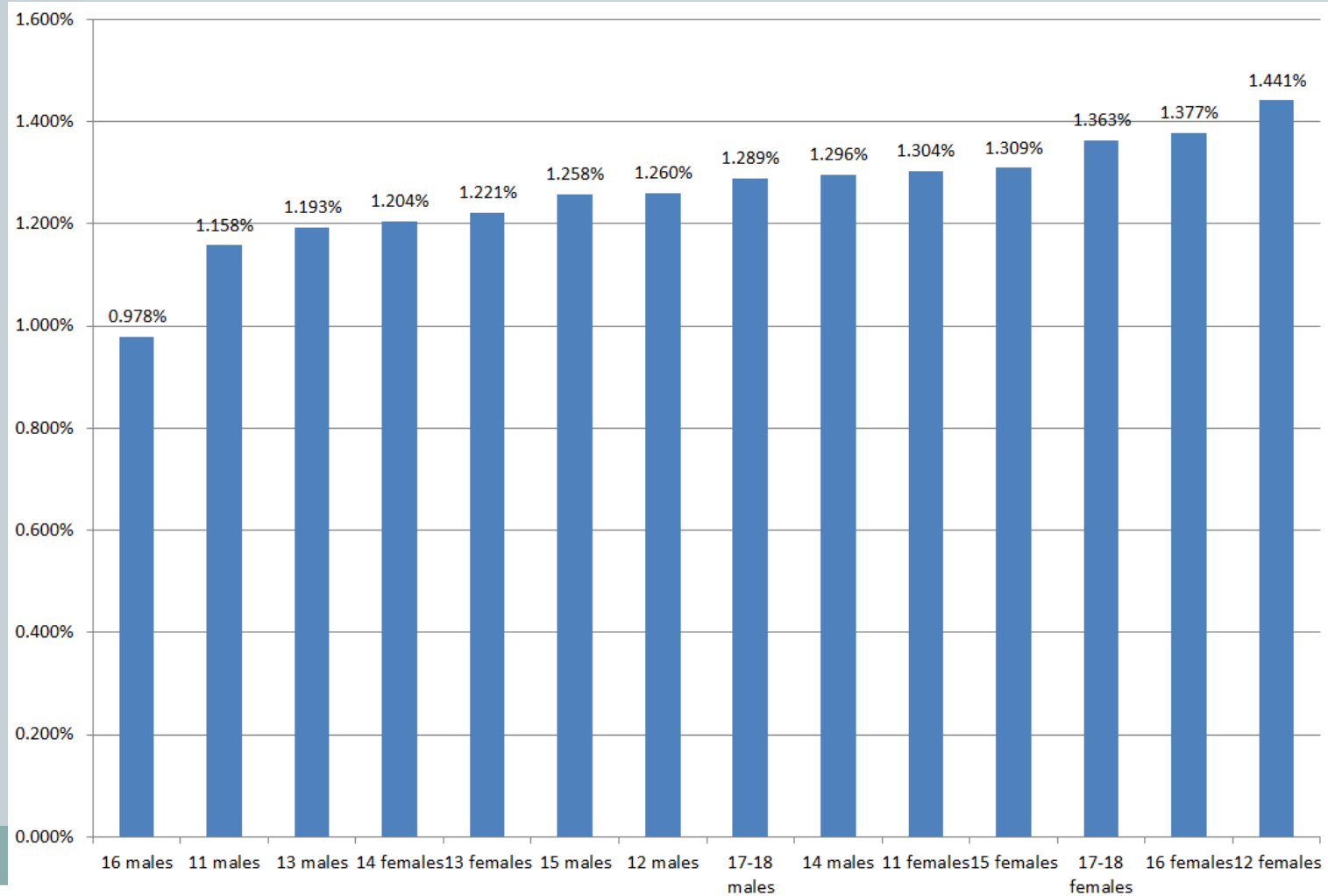
Adjusted % of Total- STK



Virtual Club Breakdown Winter 2009-2010



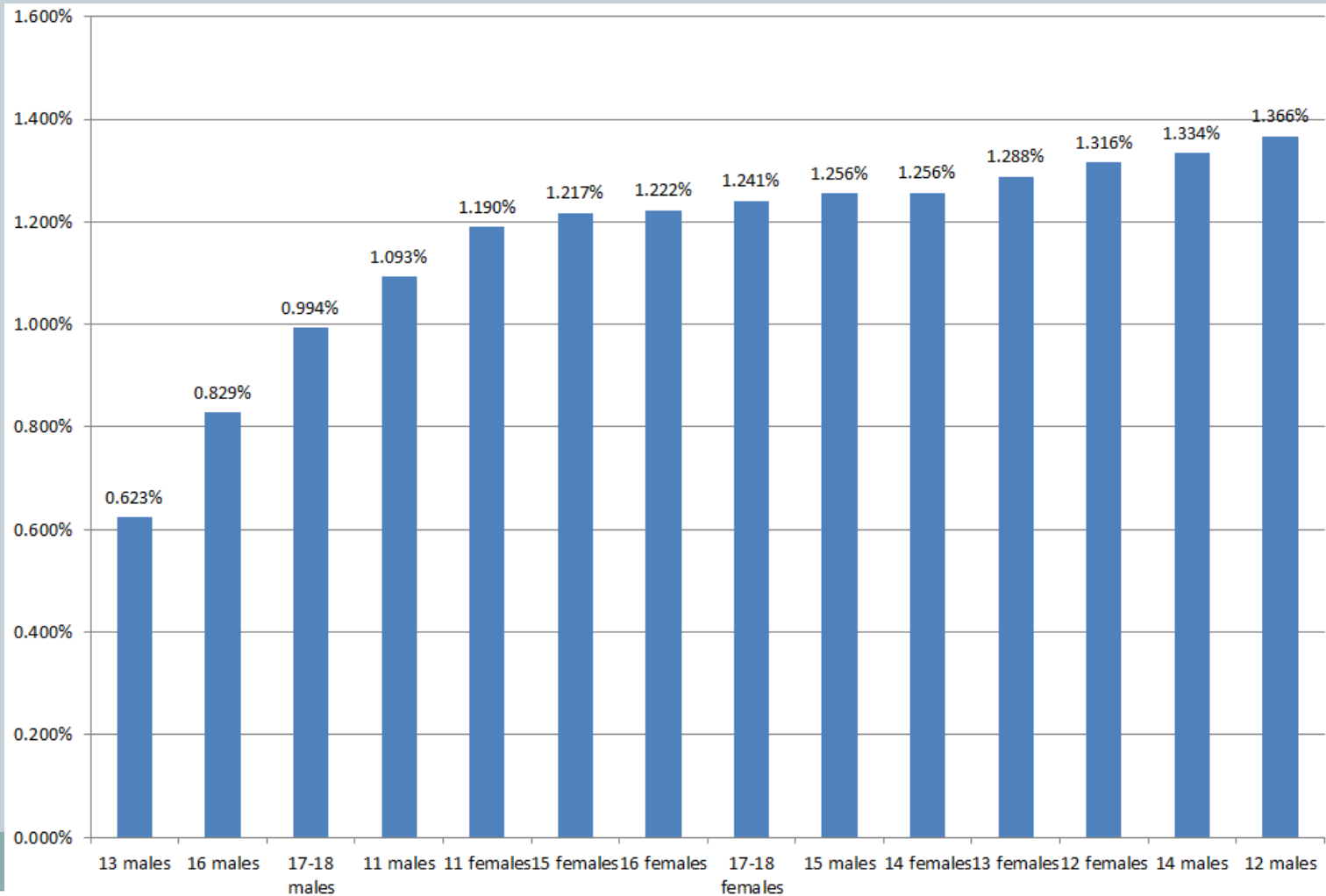
Sprint Free



Virtual Club Breakdown Winter 2009-2010



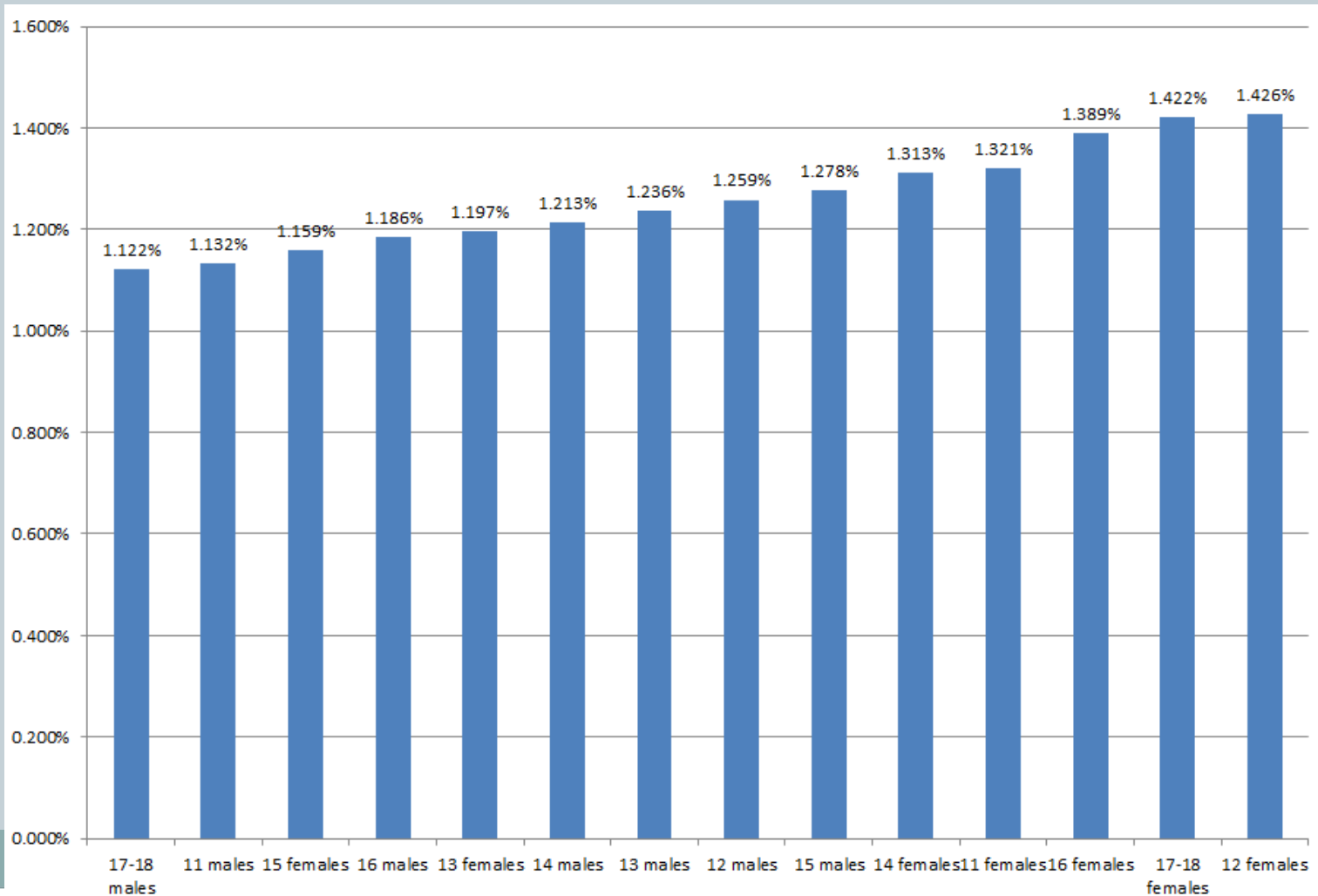
Distance Free



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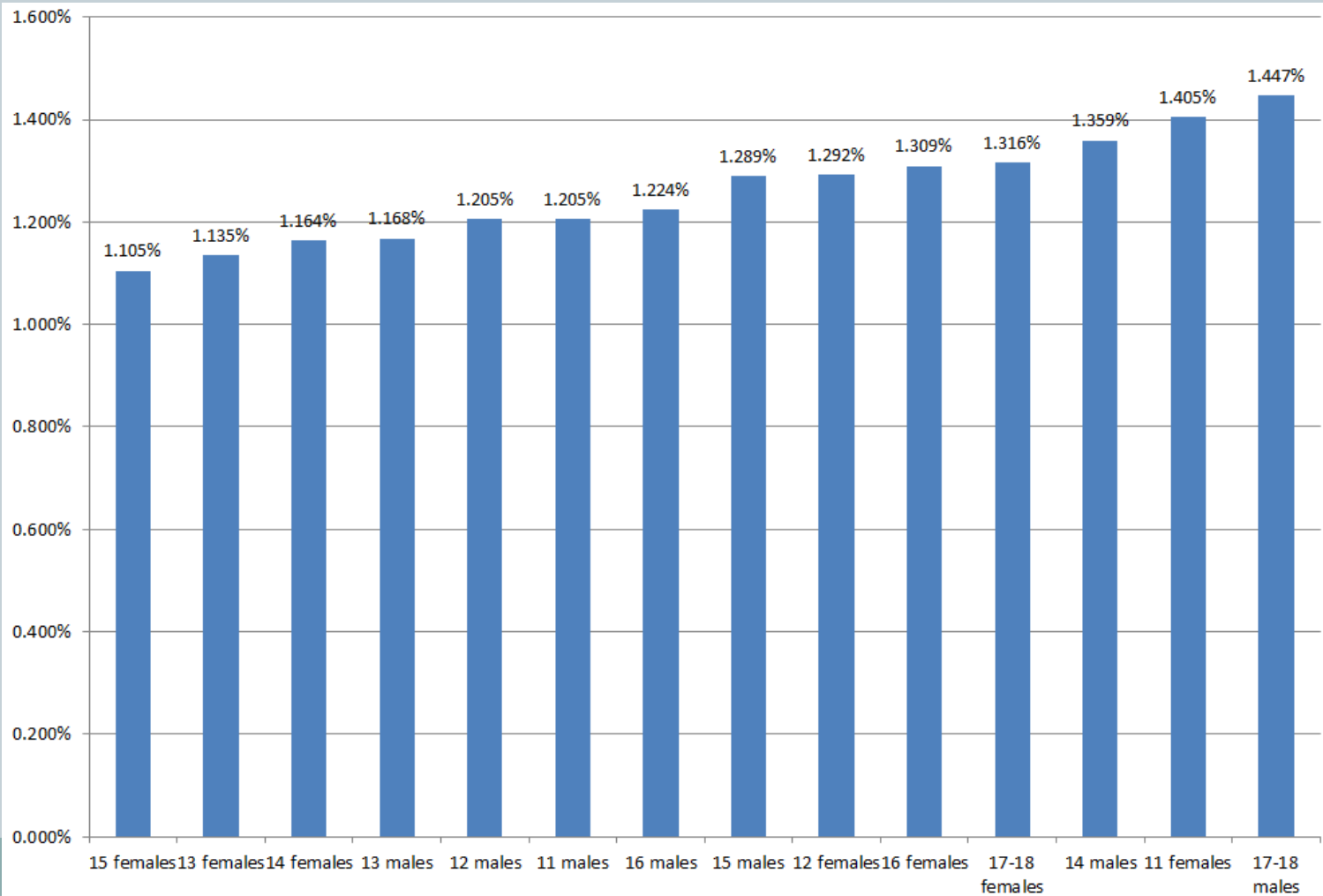
Back



Virtual Club Breakdown Winter 2009-2010



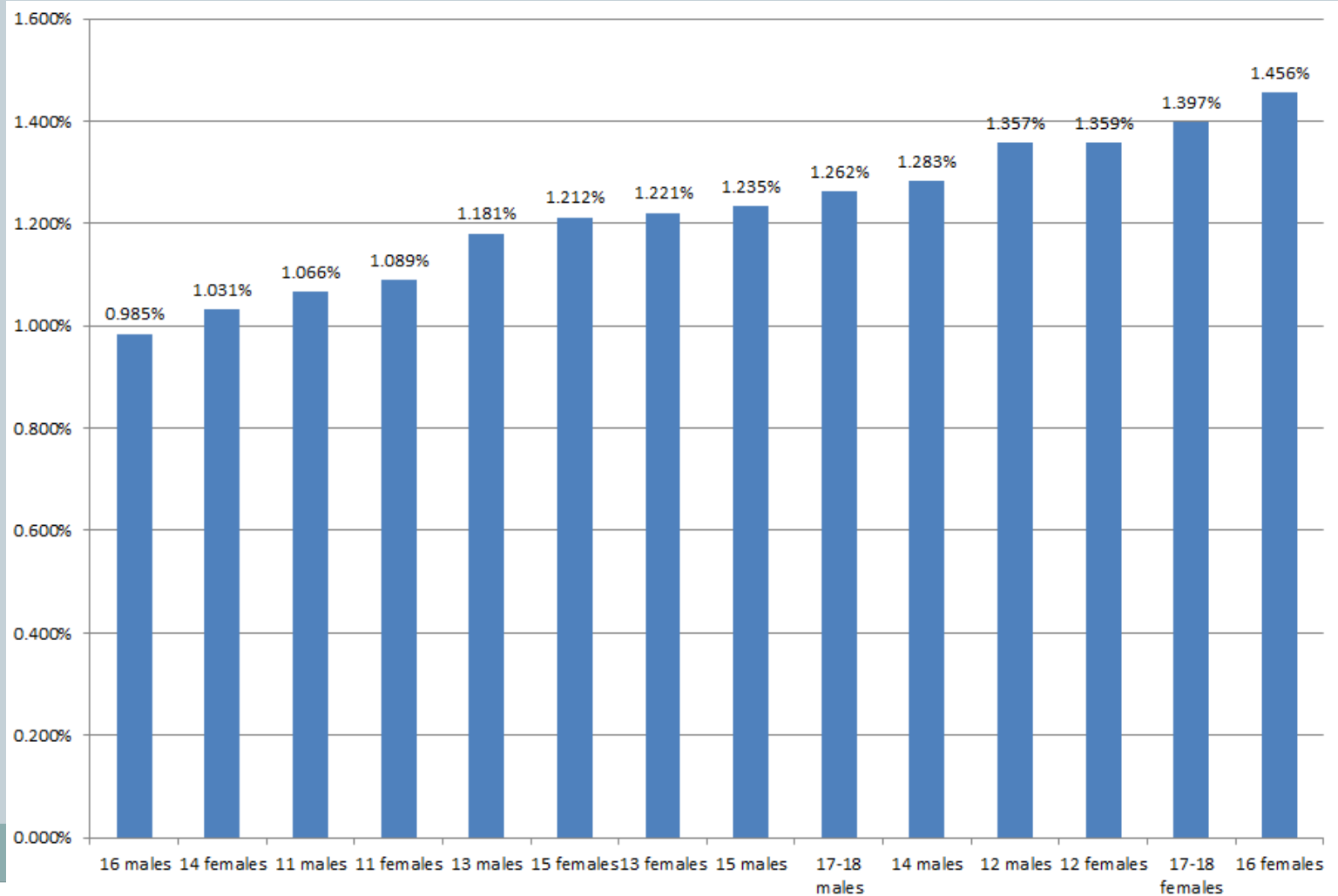
Breast



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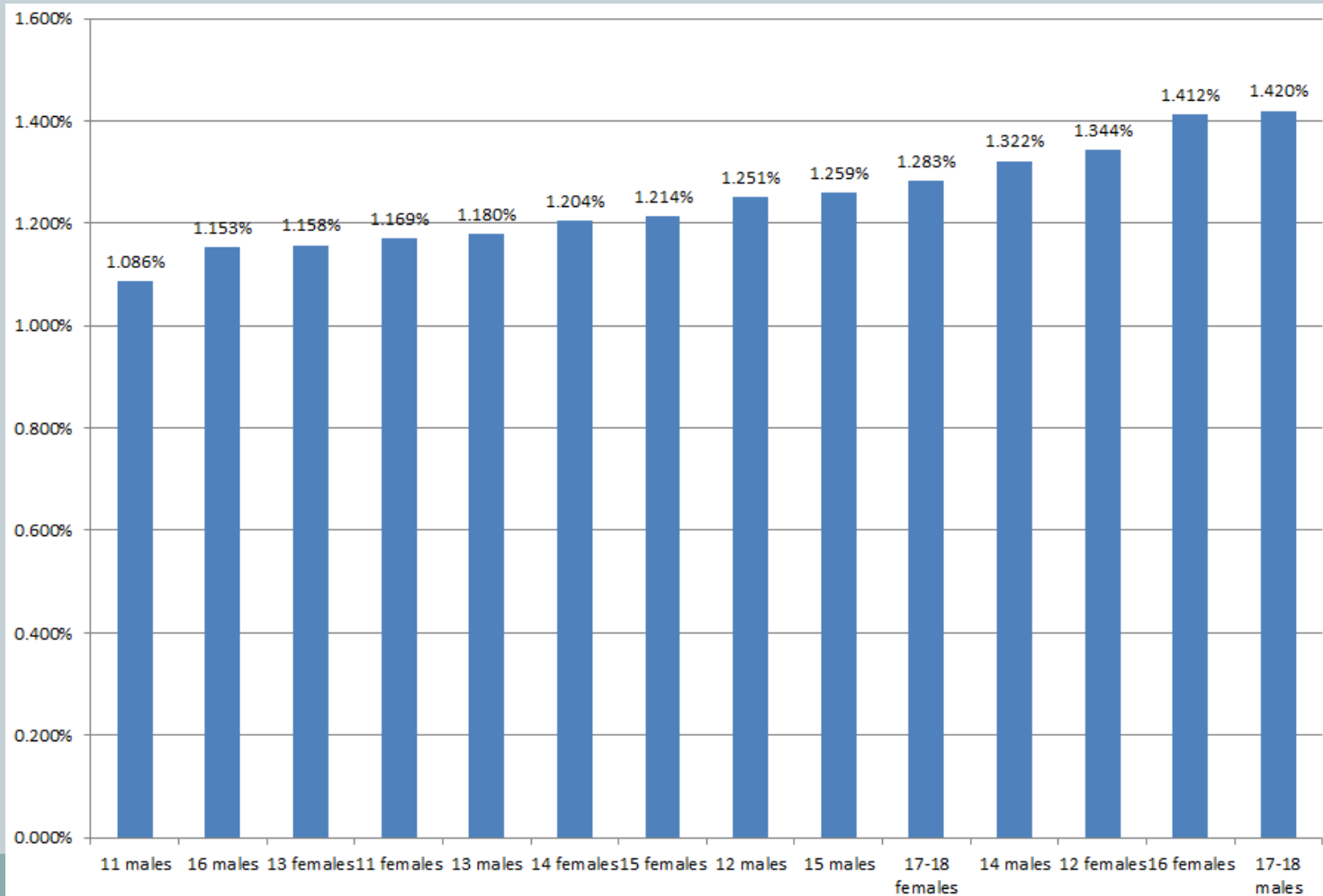
Fly



Virtual Club Breakdown Winter 2009-2010



IM



The 10,000 Hours Theory



- Chart your teams practice time vs. expected % in each group
- Multiply by the number of years spent in each group
- Figure out how many hours an athlete has practiced if they started at 8, and when they hit 10,000 hours
 - Assume they swim 4 years in college and attend practice regularly

Questions?



Nate Knopf- Lakeside Swim Team

nate@lakesideseahawks.org

