

Evaluation of NVWF Pairing Process



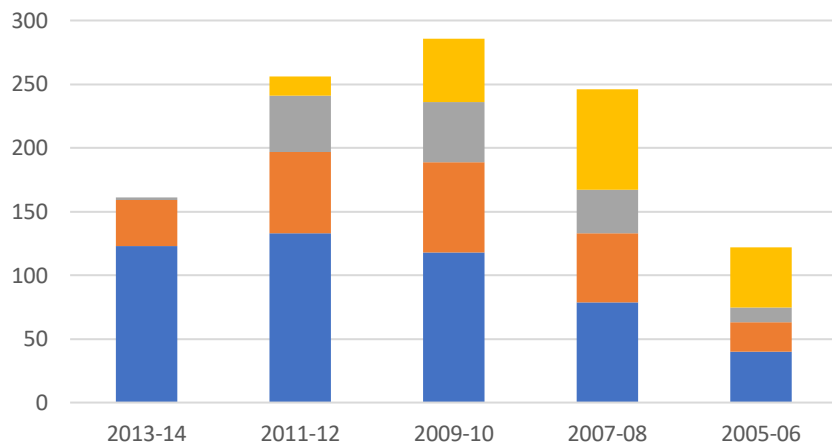
Compiled by Bill Marck
(using materials from Mike Gingras)

April 27, 2020

Season 2019-2020 Statistics

1071 registrants for Season 2019-2020

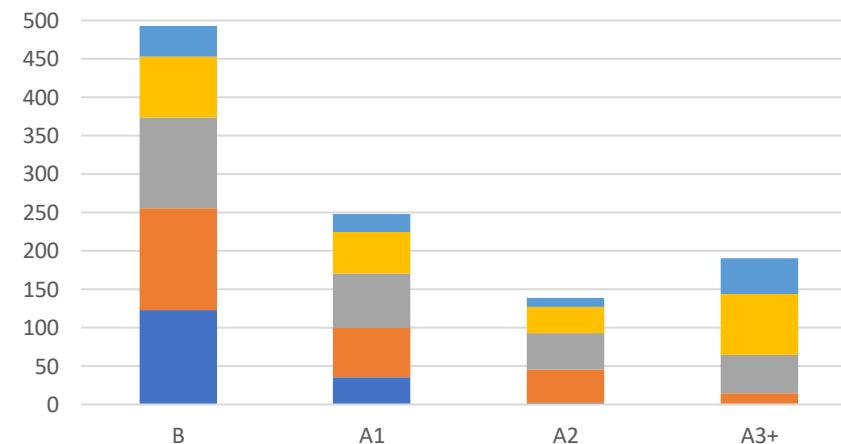
Registrant Numbers by Age Division



■ B ■ A1 ■ A2 ■ A3+

Ref: League Athletics

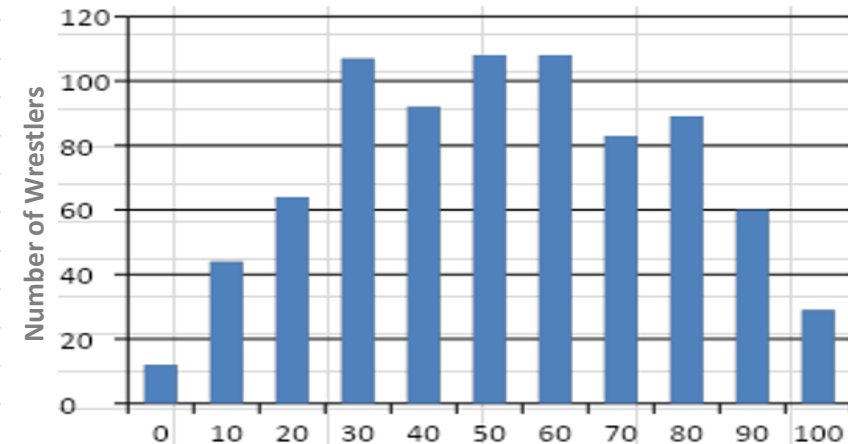
Registrant Numbers by Age Division



■ 2013-14 ■ 2011-12 ■ 2009-10 ■ 2007-08 ■ 2005-06

Ref: League Athletics

Number of Wrestlers Based on Win Percentage



Percentages for 796 Participants During Season 2019-20

Ref: Mike Gingras Database Statistics

NVWF TOURNAMENT		PARTICIPANTS All Groups	NUMBER OF BOUTS					Subtotals
Date	Location		Ban	Mid	Jun	Int	Sen	
January 19, 2020	Falls Church HS	309	128	133	283	212	146	902
January 19, 2020	Westfield HS	344	157	127	335	225	150	994
February 16, 2020	King George	264	102	127	252	172	134	787
February 16, 2020	Battlefield	294	127	105	343	184	111	870

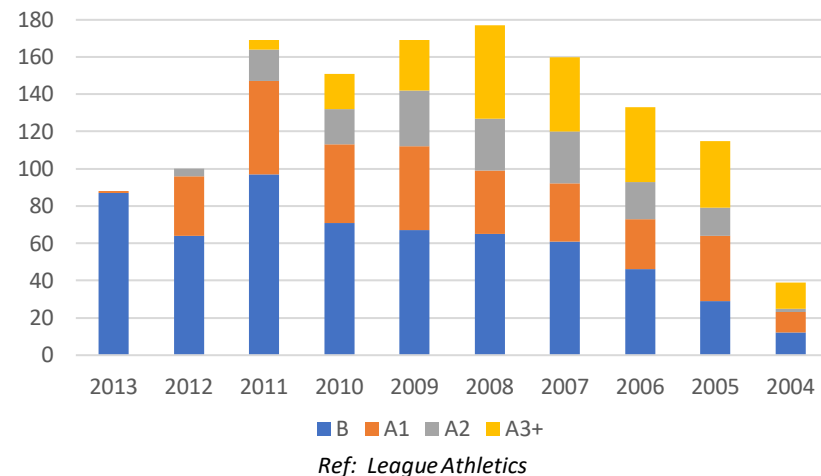
Ref: (a) Text feedback from Mike Gingras, and (b) Shannon Matheny tournament files.

- Ideally, if pairing is done properly, a “bell-shaped” curve appears as seen in the upper right – thus showing the effectiveness of NVWF process. Histograms on the right side of the chart shows wrestlers that win most of the time.
- Additionally, we want to process bouts efficiently; out of 1071 registrants, 653 and 558 participants attended on January 19th and February 16th.
- NVWF adjusted its age divisions to level out the number of wrestlers in each. The above age divisions are seen to compare with prior years.
- 6-man pairings gives 4 matches for each wrestler or nine bouts per group (using the NVWF approach)
- NVWF used between 7-8 mats (stations)

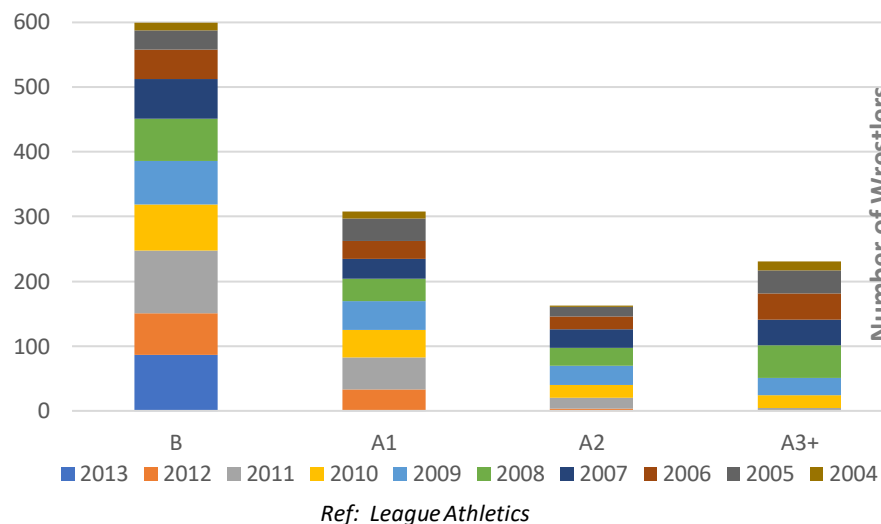
Season 2018-2019 Statistics

1301 registrants for Season 2019-2020

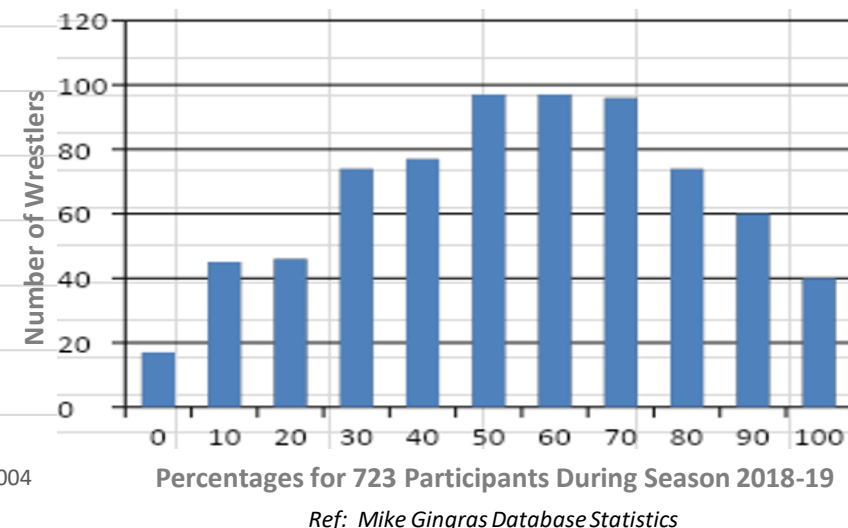
Season 2018-2019 Registration by Birth Year



Season 2018-19 Registration by Experience



Number of Wrestlers Based on Win Percentage



Registrants by Skill Levels											Registrants by Skill Levels					
B	A1	A2	A3	A4	A5	A6	A7	A8	Subtotals		B	A1	A2	A3+	A2+	Subtotals
599	308	163	117	50	36	19	8	1	1301		599	308	163	231	394	1301

1301 registrants recorded in League Athletics for Season 2018-2019

- Ideally, if pairing is done properly, a “bell-shaped” curve appears as seen in the upper right – thus showing the effectiveness of NVWF process.
- Tournaments typically end around 3:30-4:30 PM.
- NVWF adjusted its age divisions to level out the number of wrestlers in each. The above age divisions are seen to compare with prior years.
- 6-man pairings gives 4 matches for each wrestler or nine bouts per group (using the NVWF approach)
- NVWF used between 7-8 mats (stations)
- 6-7 mats were used for the older groups at 90-second periods

Season 2019-2020 Win Statistics

All Participants		Prior Years = 0		Prior Years = 1		Prior Years = 2		Prior Years = 3		Prior Years = 4		Prior Years >= 5	
Count	% Win	Count	% Win	Count	% Win	Count	% Win	Count	% Win	Count	% Win	Count	% Win
12	0	7	0	3	0	0	0	2	0	0	0	0	0
44	10	26	10	10	10	7	10	1	10	1	10	0	10
64	20	26	20	17	20	6	20	11	20	3	20	2	20
107	30	58	30	26	30	12	30	11	30	0	0	2	30
92	40	38	40	23	40	14	40	12	40	5	40	0	40
108	50	50	50	28	50	17	50	10	50	2	50	6	50
108	60	45	60	28	60	20	60	6	60	3	60	9	60
83	70	47	70	22	70	5	70	3	70	3	70	4	70
89	80	38	80	21	80	18	80	5	80	6	80	4	80
60	90	26	90	12	90	7	90	9	90	1	90	5	90
29	100	13	100	6	100	4	100	3	100	1	100	4	100
796		374		196		110		73		25		32	
All Participants		B		A1		A2		A3+		A2+			
Count	% Win	Count	% Win	Count	% Win	Count	% Win	Count	% Win	Count	% Win		
12	0	7	0	3	0	0	0	2	0	2	0		
44	10	26	10	10	10	7	10	2	10	9	10		
64	20	26	20	17	20	6	20	16	20	22	20		
107	30	58	30	26	30	12	30	13	30	25	30		
92	40	38	40	23	40	14	40	17	40	31	40		
108	50	50	50	28	50	17	50	18	50	35	50		
108	60	45	60	28	60	20	60	18	60	38	60		
83	70	47	70	22	70	5	70	10	70	15	70		
89	80	38	80	21	80	18	80	15	80	33	80		
60	90	26	90	12	90	7	90	15	90	22	90		
29	100	13	100	6	100	4	100	8	100	12	100		
796		374		196		110		134		244			

- The left columns show 796 participants and the number wrestlers that won a specified percentage of time through the season.
- The other columns show percentages for wrestlers with a specified years of experience similarly.
- Over time during the season, NVWF would pair the more dominant wrestlers together. Therefore, if for example, 18 wrestlers with three or more years of experience (A3+) were in a pool with similar skilled kids, then it appears that 18 won 50% of the time.

Conclusions

- NVWF did an excellent job pairing and processing its participants
- Even though families or clubs mislabeled experience levels or weights, NVWF was able to adjust by:
 - Weekly weigh-ins during the morning of each event
 - Tracking win-loss records to pair opponents as weeks progressed
- NVWF did a good job processing large numbers of wrestlers on-time and within a 9:00 AM to 5:00 PM time period
 - With few interruptions
 - Without staying in the gym extensively into the evening

Alternative Pairing Methods & Variations

Comparing Scramble vs Traditional Pairing Methods

SCRAMBLING PAIRINGS

2006	A3	SENIORS
2006	A2	
2006	A1	
2006	B	
2007	A3	SENIORS
2007	A2	
2007	A1	
2007	B	
2008	A3	INTERMEDIATES
2008	A2	
2008	A1	
2008	B	
2009	A3	INTERMEDIATES
2009	A2	
2009	A1	
2009	B	
2010	A3	JUNIORS
2010	A2	
2010	A1	
2010	B	
2011	A3	JUNIORS
2011	A2	
2011	A1	
2011	B	
2012	A3	MIDGETS
2012	A2	
2012	A1	
2012	B	
2013	A3	MIDGETS
2013	A2	
2013	A1	
2013	B	

TRADITIONAL AGE DIVISIONS

2006	A3	SENIORS
2006	A2	
2006	A1	
2006	B	
2007	A3	SENIORS
2007	A2	
2007	A1	
2007	B	
2008	A3	INTERMEDIATES
2008	A2	
2008	A1	
2008	B	
2009	A3	INTERMEDIATES
2009	A2	
2009	A1	
2009	B	
2010	A3	JUNIORS
2010	A2	
2010	A1	
2010	B	
2011	A3	JUNIORS
2011	A2	
2011	A1	
2011	B	
2012	A3	MIDGETS
2012	A2	
2012	A1	
2012	B	
2013	A3	MIDGETS
2013	A2	
2013	A1	
2013	B	

Scramble Pair #1
Stays w/in Age Divisions

Scramble Pair #2
Mixes Age Divisions

Scramble Pair #3
*Mixes Skills Several Years Apart
Select 1, 2, 3, or 4 years difference*

Senior group includes some 9th, all 8th, and older 7th graders

Intermediate group includes some 7th, all 6th, and older 5th graders

Intermediate group includes some 5th, all 4th, and older 3rd graders

Intermediate group includes some 3rd, all 2nd, and older 1st graders

- Traditional groupings are further paired by placing novice kids together from the same age division group
- Scramble pairings is a feature in TrackWrestling allowing better skilled kids from a much younger birth year to pair with a lesser experienced kid from an older birth year 1-3 years older